



**CH2M HILL**

2485 Natomas Park Drive

Suite 600

Sacramento, CA 95833-2937

Tel 916.920.0300

Fax 916.920.8463

September 6, 2002

Ms. Kristy Chew  
Siting Project Manager  
California Energy Commission  
1516 Ninth Street, MS-15  
Sacramento, CA 95814

RE: Preliminary Staff Assessment Comments, Set 1  
Cosumnes Power Plant (01-AFC-19)

On behalf of the Sacramento Municipal Utility District, please find attached 12 copies and one original of PSA Comments, Set 1, in response to staff's Preliminary Staff Assessment dated August 2002.

Please call me if you have any questions.

Sincerely,

CH2M HILL



John L. Carrier, J.D.  
Program Manager

c: Colin Taylor/SMUD  
Kevin Hudson/SMUD  
Steve Cohn/SMUD

**Sacramento Municipal Utility District**  
**Comments on the Cosumnes Power Plant**  
**Preliminary Staff Assessment, Set 1**

Listed below, for CEC staff's consideration, are Set 1 of SMUD'S comments on the Preliminary Staff Assessment (PSA) for the Cosumnes Power Plant (CPP) project (01-AFC-19).

**GENERAL COMMENT**

Most sections did not have a subsection that described the significance criteria. Adding such a section would improve the document.

**EXECUTIVE SUMMARY**

p.1.1-2, para. 4: Sentence two reads, "However, there are three technical areas for which staff could not fully assess both phases of the project, air quality, transmission system engineering, and soil and water resources. As a result, only the first 500 MW is actually being considered for licensing during this proceeding." SMUD proposes the following language: "Three technical areas will require supplemental evaluation for Phase 2, air quality, transmission system engineering, and soil and water resources. As a result, the second phase of the 1,000 MW license will be conditional upon that evaluation."

p.1.1-5, Air Quality, bullet 2: SMUD would like to be informed of the technical basis drawing the conclusion that there may still be an unmitigated adverse impact to the area in the vicinity of the proposed plant.

p.1.1-7, Cultural Resources: The third bullet item asks for information regarding Native American involvement in the project including identification of any sacred sites. SMUD feels this item has been addressed and well documented in the AFC, confidential data responses, records of conversation, and workshop proceedings. Please delete this item.

p.1.1-7, Transmission System Engineering: SMUD would like staff to reconsider this summary since other area projects have been recently been withdrawn or delayed.

p.1.1-8, Water and Soil Resources: A very brief summary of the water and soil resources section is provided that does not appear to include a host of other apparent issues that are raised in the W&SR section. Perhaps you can elaborate during the workshops so that SMUD can determine the actual number of issues staff feels are significant.

**INTRODUCTION**

No comments.

**PROJECT DESCRIPTION**

p.3.1-1, para. 4: The last sentence indicates that only Phase 1 will be considered for licensing. Please amend language in the last sentence of the fourth paragraph to be inclusive of Phase 2, conditional upon the information proposed as PD-1 (below).

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

p. 3.1-3, para 2: Please revise the paragraph to read as follows:

“The 24-inch natural gas pipeline will connect to SMUD’s existing pipeline. The connection will be within SMUD’s Carson Ice Measurement and Regulation Station. The Carson Ice M&R Station’s south fence would be moved approximately 6 feet to the south providing space for the additional facilities. The two valve stations that are proposed to be located near Core Road/Bruceville Road and Arno Road/Valensin Road would each be 50 feet x 50 feet in size. However, the valve station proposed near Valensin Road/Alta Mesa Road would be approximately 100 feet x 100 feet in size.”

p.3.1-3, Water, para. 2: The second sentence indicates water is routed “west” through a 66-inch diameter pipeline. The water pipeline is actually routed “east”.

p.3.1-3, Water, para. 3: Evaporative cooling will be used to cool the inlet air into the CTGs. Therefore, inlet fogging is no longer anticipated.

p. 3.1-4: A condition should be added at the end of the Project Description section to specify the supplemental AFC process required for the construction and operation of Phase 2 (500 MW). SMUD proposes the following language:

**PD-1** The proposed findings, conclusions, and conditions of certification contained in the final decision on Phase 1 (“the Phase 1 Decision”) shall apply to both CPP Phase 1 (500 MW) and Phase 2 (500 MW), unless specifically indicated otherwise in the Phase 1 Decision. The project owner shall submit a supplemental application to the Commission before it starts construction of Phase 2. Provided that the project owner submits the supplemental application within 3 years of the effective date of the Phase 1 Decision, the Commission’s review of the supplemental application shall be limited to Air Quality, Water Resources, and Transmission System Engineering. The Phase 1 record shall not be reopened and the Phase 1 Decision shall not be amended for any other matter, except: (1) for any reason specified in Public Resources Code section 25534; and (2) to ensure compliance with applicable laws enacted after the Commission’s Phase 1 Decision. The Commission shall issue its findings and render a final decision on Phase 2 within 6 months after the supplemental application is filed.

**Verification<sup>1</sup>**: The project owner shall submit the supplemental application for Phase 2 at least 6 months prior to start of construction of Phase 2. If the supplemental application is filed within 3 years after the effective date of the Phase 1 Decision, then it shall provide the information specified in Title 20, CCR, Appendix B (AFC Informational Requirements), parts (g)(8) (Air Quality), (g)(14) (Water Resources), and (i)(2) (Transmission System Engineering Design). If the supplemental application is filed more than 3 years after the effective date of the

---

<sup>1</sup> All timeframes contained in the verifications and conditions but for the three-year date included in this verification can be modified with the approval of the CPM or CBO, as appropriate.

# **Sacramento Municipal Utility District**

## **Comments on the Cosumnes Power Plant**

### **Preliminary Staff Assessment, Set 1**

Phase 1 Decision, then the Commission may specify additional informational requirements, as necessary and appropriate to address changed circumstances or environmental conditions. The Phase 2 approval process shall use, wherever possible, the less formal post-certification amendment rules and procedures pursuant to 20 CCR 1769.

#### **AIR QUALITY**

The following comments are focused on those aspects of the Preliminary Staff Assessment that are independent of the Preliminary Determination of Compliance (PDOC). Separate comments on the PDOC will be provided.

p. 4.1-3, Rule 206: The PSA makes reference to SMAQMD Rule 206 in a discussion of project BACT requirements. However, Rule 206 is related to mobile source emission reduction credits, and is not applicable to CPP. The BACT discussion is related to Rule 202. In addition, the PSA should reference Rule 413, which is a prohibitory rule related to gas turbines.

p. 4.1-6: The PSA indicates that the project area is designated as nonattainment for state and federal CO standards, and is unclassified with respect to the federal PM<sub>10</sub> standard; this is incorrect. The project area is designated as attainment for the state and federal CO standards, and is nonattainment with respect to the federal PM<sub>10</sub> standard. The staff assessment should also note that the SMAQMD intends to file a request for redesignation of the project area as attaining the federal PM<sub>10</sub> standard. There have been no violations of either the state or federal CO standards in Sacramento County since 1993, and no violations of the federal PM<sub>10</sub> standards since at least 1993.

The PSA also suggests that there is a slight increasing in trend in the peak ozone levels and frequency of violations of the state ozone standard. A review of rolling three-year averages of the peak ozone level and number of violation days actually indicate that this trend peaked in 1999 or 2000, and that there has been a flattening, or slight decline, since that time.

p. 4.1-7, NO<sub>x</sub>-Ozone-VOC Relationship: The PSA presents the staff's analysis of the relationship between VOC and NO<sub>x</sub>, the principal precursors of ambient ozone levels. However, in presenting this discussion the staff fails to discuss the fact that a rigorous, photochemical modeling analysis was performed at the request of the SMAQMD, and that the protocol for this analysis, as well as the results of this analysis, were reviewed by the staff's of the SMAQMD, California Air Resources Board, and U.S. Environmental Protection Agency. Although the staff's analysis purports to show that ozone levels are relatively insensitive to changes in VOC emissions, the more rigorous analyses prepared at the request of the SMAQMD, as well as the graphs presented in the PSA, suggest a different conclusion.

For example, Air Quality Figure 2 shows the hourly trends of ambient precursor and ozone concentrations for an ozone episode that occurred in Sacramento in July 1999. The trends

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant

#### Preliminary Staff Assessment, Set 1

clearly show a correlation between ozone levels and VOC:NOx<sup>2</sup> ratio; that is to say, the higher the ratio of VOC:NOx concentrations in the atmosphere, the higher the observed ozone levels. In the PSA, the staff looked at the VOC and NOx concentration trends during this period, observed that the VOC concentrations remained relatively constant while the NOx concentrations decline during periods of high ozone levels, and concluded that ozone levels were unrelated to changes in VOC emissions. However, the staff did not look at hourly trends of VOC emissions, and can't reach any such conclusion. If the staff were to apply the same logic to NOx emissions, they would conclude, based on Air Quality Figure 2, that lower NOx emissions result in higher ozone levels – an equally unsupportable conclusion.

Air Quality Figure 3 of the PSA presents a similar trend analysis; in this case, however, the chart appears to reference NO<sub>2</sub> and not NOx concentrations. If the labels on this chart are correct, they merely demonstrate that higher ozone levels are associated with lower NO<sub>2</sub> concentrations – a truism, since ozone is formed (in a simplistic sense) from the conversion of NO<sub>2</sub> to NO.<sup>3</sup> No conclusions regarding precursor relationships can be drawn from this figure either.

Finally, in Air Quality Figure 6, the staff presents trends of ozone concentrations during an episode period, looking at a variety of monitoring stations. The staff refers to a station in Stockton as being upwind when, in fact, it is extremely rare for Stockton to be upwind of Sacramento. The staff further refers to the Sacramento T street monitoring station as a downwind station when, for ozone episodes that are largely driven by locally generated emissions, the T Street station is, for all practical purposes, more accurately characterized as an upwind station.

In short, for the reasons presented above, the Applicant recommends that this discussion be deleted from the staff's assessment and replaced with the conclusions presented by the SMAQMD on this topic in the PDOC.

p. 4.1-12, 3<sup>rd</sup> bullet: The PSA suggests that a change in the area's attainment status could result in a change in BACT determinations. As is the case in most California air districts, the SMAQMD applies the same BACT definition regardless of the attainment status of any particular pollutant.

p. 4.1-17: Although the PSA indicates that the air quality analysis looked only at Phase I of the project, the air quality modeling results presented in Air Quality Table 5 reflects the combined operation of both phases (1000 MW). Furthermore, the PSA suggests that simply because existing PM<sub>10</sub> air quality levels exceed the state standard (as is the case throughout

---

<sup>2</sup> For the purposes of this discussion, we assume that Air Quality Figure 2 is accurately labeled and is presenting NOx, and not NO<sub>2</sub>, air quality trends.

<sup>3</sup> This reaction is reversible; when NO is emitted into an area with ozone, the NO scavenges the ozone, reducing it to molecular oxygen, while the NO is converted to NO<sub>2</sub>. The speed with which these competing, reversible reactions occur is a function of temperature, sunlight, and the VOC:NOx (not just VOC:NO<sub>2</sub>) ratio.

## **Sacramento Municipal Utility District**

### **Comments on the Cosumnes Power Plant**

#### **Preliminary Staff Assessment, Set 1**

most of California), the project's PM<sub>10</sub> air quality impacts are considered significant. The Applicant believes that such a conclusion – that even a single additional molecule of PM<sub>10</sub> constitutes a significant impact – is technically insupportable. The modeled PM<sub>10</sub> air quality impacts for the full, 1000 MW project are below all regulatory significance levels; consequently, we believe that the project does not result in any significant localized PM<sub>10</sub> impacts. The Applicant concedes, however, that because the project is contributing to existing air quality levels that are already in excess of the state standards the project may be contributing to a regional, significant cumulative air quality impact requiring mitigation. Furthermore, the Applicant believes that compliance with the SMAQMD's offset requirements constitutes adequate mitigation. The Applicant believes that because offsets are being provided at a ratio of at least 1:1 for every ton of emissions emitted (excluding carbon monoxide, for which no significant impacts have been identified), in accordance with the staff's practice in other proceedings, the staff should conclude that the regional, cumulative impacts of the project have been adequately mitigated. (This issue is addressed below.)

p. 4.1-17, Ozone Impacts: The last paragraph of the discussion regarding ozone impacts indicates that offsets are being provided from Sutter County, among other locations. There are no offsets from Sutter County proposed for CPP.

p. 4.1-19, Operational Phase: The PSA should note that in addition to proposing a NOx emission level of 2.5 ppm on a 1-hour average basis, the plant has been designed to meet a NOx emission level of 2.0 ppm on an annual average basis. The quarterly emission limits expected to be imposed on the facility will reflect that design.

p. 4.1-20, Offsets, para. 1: The discussion of offsets should indicate that offsets are proposed to be provided from sources located in Sacramento, Placer and Yolo Counties; no offsets from Sutter County are proposed for CPP.

p. 4.1-26, para. 3: The PSA "adjusts" the amount of ERCs provided from road paving and from Concrete, Inc. by a factor intended to account for the PM<sub>2.5</sub> fraction of these reductions. The Applicant believes that such an adjustment is inappropriate. The staff has not concluded that the project's PM<sub>2.5</sub> impacts are significant, and hence warrant mitigation. In fact, the data presented in the AFC indicate that PM<sub>2.5</sub> levels in the project area are generally in compliance with the federal ambient air quality standards for this pollutant. Furthermore, by discounting the value of these ERCs, staff is, in effect, alleging that no public health benefits are associated with these reductions. This is technically inaccurate, and is also inconsistent with the position taken by staff (and the Commission) in other proceedings. This issue is discussed further in more detail below.

p. 4.1-25, Air Contaminant Abatement System, para. 2: The staff "recommends" that ammonia slip emissions be reduced to 5 ppm (or less). However, in making such a recommendation, that staff has not demonstrated that air quality in the region is such that there will, in fact, be any benefit to reduced ammonia emissions. Further, the staff has not evaluated the difficulty associated with maintaining compliance on an hourly basis with a

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

NOx level of 2.0 ppm (as is expected to be required by the SMAQMD) and an ammonia slip limit of 5 ppm. Although the staff may be correct in asserting that commercial vendor guarantees may be available for this combination of emission limits, the staff overlooks the fact that these commercial guarantees are typically based on the results of steady-state source tests performed under controlled conditions, and are not guarantees that this level of performance (compliance with both NOx and ammonia limits) will be sustained every hour of the year. Furthermore, Applicant does not believe it is correct to state that U.S. EPA has taken the position that a 5 ppm ammonia slip limit is BACT. BACT is not required for ammonia under either SMAQMD regulations or EPA NSR or PSD regulations. Rather, ammonia slip is evaluated as a corollary environmental impact associated with the use of SCR. Applicant believes that the SMAQMD's proposed ammonia slip limit of 10 ppm is appropriate for this project, given the more stringent NOx limit that is being proposed, the requirement for hourly compliance with the NOx limit, and the air quality in the project area.

p. 4.1-25, para. 1: The staff proposes to reject the use of VOC emission reduction credits at a 2.6:1 ratio as mitigation for the Project's NOx emission increases, notwithstanding the fact that this ratio was determined after an extensive technical review, and was agreed to, by the SMAQMD, California Air Resources Board, and U.S. Environmental Protection Agency. The ratio is substantially higher than that originally proposed by the Applicant, and is based on substantially more robust technical analyses than those presented in the PSA. The Applicant is unaware of any precedent for the Commission staff second-guessing the conclusions of three air quality regulatory agencies in such a technical area. The Applicant is aware of the requirement that EPA must approve the VOC:NOx ratio, and will address the need for additional ERCs if EPA's approval is not obtained.

p. 4.1-26, para 3: The staff proposes to discount the use of road paving credits by 91% based on their assertion that there are no health benefits associated with reducing emissions of particles larger than 2.5 microns in size. The Applicant believes that the staff's logic is flawed on several counts, and is inconsistent with actions taken in other regulatory proceedings.

First, the staff makes the correct statement that most, if not all, of the particulate matter emitted from combustion turbines is in the range of 2.5 microns and smaller, but then goes on to state that "if these particles are composed of any toxic substance, the health effects are very pronounced." {emphasis added} However, in the remainder of the discussion, the staff apparently makes the assumption that combustion particulates from gas-fired turbines do, in fact, result in pronounced health effects. The California Air Resources Board characterizes particulates from natural gas combustion as being 50% elemental carbon, 20% sulfates, and 30% unidentified material.<sup>4</sup> Further research has suggested that as much as 80% of the PM<sub>2.5</sub>

---

<sup>4</sup> PMPROF\_7\_02.XLS, available at [http://arbis.arb.ca.gov/emisinv/speciate/PMPROF\\_7\\_02.xls](http://arbis.arb.ca.gov/emisinv/speciate/PMPROF_7_02.xls).

## **Sacramento Municipal Utility District**

### **Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1**

mass from gas-fired combustion devices is carbon (elemental and organic)<sup>5</sup>. Although no one should characterize any combustion particulate matter as being safe, the Applicant believes that the staff's suggestion that particulates from natural gas combustion result in "pronounced health risks" that are disproportionate to those associated with unpaved road dust is inappropriate.

Second, staff suggests that the range of PM<sub>2.5</sub> fractions (of total PM<sub>10</sub>) mass is between 3% and 15%, and selects a value of 9% as a representative average. The staff cites EPA's AP-42 guidance document and "ARB emission inventory staff" as the source for this range. While EPA's AP-42 guidance document indicates that the PM<sub>2.5</sub> fraction of PM<sub>10</sub> mass is approximately 15% for unpaved road dust, the corresponding ARB guidance indicates a PM<sub>2.5</sub> fraction of approximately 21%.<sup>6</sup>

Third, staff suggests that most of the larger particles (between 2.5 microns and 10 microns in size) will settle out within 100 yards of the road being paved. To the extent that this is true, this argument is inconsistent with staff's position with respect to construction fugitive dust impacts (discussed further below). Furthermore, to the extent that this is true, it is more likely to be associated with the elevation at which the particles are released, and the temperature of the plume, than it is associated with particle size. Particles of a size 10 microns and smaller typically behave as a gas; this is how the dispersion models used both by the Applicant and staff treat these particles. Particles emitted from a low temperature, low elevation plume are likely to have more elevated impacts closer to the location of the source, regardless of particle size. Thus, for staff's conclusion to have any scientific foundation, staff should propose to discount all particulate reductions associated with low elevation, cold temperature plumes, and not just particles greater than 2.5 microns in size. To the best of Applicant's knowledge, staff has not taken such a position in any previous case.

Fourth, staff refers to a two year old memorandum in support of its position that PM<sub>10</sub> reductions from road paving activities should not be used to mitigate combustion particulate matter. While ARB's position is clearly that such reductions should be discouraged, and used only in the absence of better emission reduction options, the Applicant believes that there are no better options in the vicinity of the project. Furthermore, the proposed emission reduction credits for the Applicant's road paving program were publicly noticed and subject to public comment earlier this year by the SMAQMD; the ARB expressed no written objection to issuance of those credits for this project during the public comment period.

Fifth, the staff's position that the PM<sub>10</sub> (as distinguished from PM<sub>2.5</sub>) reductions associated with the road paving credits will be too localized is in direct opposition to the conclusion

---

<sup>5</sup> England, Glenn, and Wein, Stephanie, GE EER. Franco, Guido, California Energy Commission.. "PM<sub>2.5</sub> Source Emissions Characterization for Gas-Fired Boilers and Gas Turbines". Presented at AWMA West Coast Section Meeting, March 2001.

<sup>6</sup> PMSIZE.XLS, available at <http://arbis.arb.ca.gov/emisinv/speciate/PMSIZE.xls>.



## **Sacramento Municipal Utility District**

### **Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1**

reached by the staff in the Tracy Peaker Project (TPP) case recently decided by the commission. In that proceeding, the CEC staff concluded that the provision of emission reduction credits from locations as far as 200 miles from the project site was adequate to ensure that there were no significant unmitigated air quality impacts. Although the CEC staff may be quick to cite the local mitigation program proposed by the TPP project developer, in doing so the staff overlooks the language in PMPD condition AQ-78 that deals with the TPP local mitigation program. This condition reads as follows:

“This condition is agreed to in order to address concerns raised by the public, and is not imposed to mitigate a significant impact under CEQA.”

Thus, the CEC’s conclusions regarding the significance of air quality impacts for TPP rest solely on that project’s provision of emission reduction credits – without regard to the distance between the project site and the location of the ERCs, or the characteristics of the sources of those ERCs. The Applicant believes that the same logic should apply to the CPP project as well.

It is also important to note that the CEC staff has historically, and correctly, taken the position that when it comes to evaluating impacts for significance under CEQA, it is appropriate to look at reasonable worst-case scenarios and not absolute worst-case scenarios. The previous context in which the CEC addressed this issue was in the manner used to determine worst-case daily emissions from a project to evaluate the need for, and adequacy of, mitigation. For example, even if the air permit for a project would have allowed the operation of duct burners for all 24 hours in a day, the CEC staff evaluated whether that was a likely worst-case scenario and, in some cases, concluded that, for example, only 16 hours of duct firing operation would occur on a “reasonable worst case day”.

The CEC staff presently evaluates project impacts looking at annual emissions, and not daily emissions; however, the “reasonable worst case” concept still applies. The Applicant believes that with respect to PM<sub>10</sub> emissions from the Project, this issue is particularly relevant. The CEC staff is in receipt of source test data from comparable facilities that demonstrate that expected PM<sub>10</sub> emission rates will be approximately one-half, or less, of the maximum PM<sub>10</sub> emission rates shown in Air Quality Table 3, even if the Project operates to the maximum level allowable under the SMAQMD permit. An evaluation of CPP emissions based on this “reasonable worst case” emission rate for PM<sub>10</sub> lends further credence to the position that the Project’s PM<sub>10</sub> impacts are fully mitigated through the provision of emission reduction credits provided to satisfy SMAQMD offset requirements.

Finally on this point, the staff’s position is inconsistent with the position taken by staff in the High Desert Power Project case. In that case, the staff raised questions only as to whether the road paving reductions were surplus to other regulatory requirements; there was no mention made of any discount to reflect the PM<sub>2.5</sub> fraction of the reductions proposed.<sup>7</sup> The

---

<sup>7</sup> Staff Assessment, High Desert Power Project (97-AFC-1), p. 40

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant

#### Preliminary Staff Assessment, Set 1

staff's position in that case was affirmed by the Commission, which approved the project based on the full PM<sub>10</sub> reductions associated with the road paving project.<sup>8</sup> The following table shows how road paving credits have been treated in several prior proceedings.

COMPARISON OF ROAD PAVING MITIGATION MEASURES			
	High Desert	Three Mountain Power	Blythe Energy
Total Project PM <sub>10</sub> Emissions Offsets Required (Tons/Year)	234	184	103
PM <sub>10</sub> Reductions from Road Paving (Tons/Year)	220	138	103
Distance from Road Paving Reductions to Project (Miles)	< 10	< 10	Unknown
Fraction of Project PM <sub>10</sub> Offsets Provided with Road Paving Credits	94%	75%	100%
Discount Factor Applied to Road Paving Credits	None indicated	None indicated	None indicated

The above data indicate that for these three projects, the majority of the PM<sub>10</sub> offsets were provided through road paving projects. In none of the cases does it appear that any discount was applied with respect to particle sizes smaller than 10 microns. The Applicant is unaware of any reason why the road paving credits proposed for the Cosumnes Power Project should be treated any differently.

p. 4.1-26, SO<sub>x</sub>: staff has suggested that the Project's emissions of sulfur dioxide have been underestimated, and that as a result of this underestimation additional mitigation should be provided for this pollutant. The Applicant disagrees with this conclusion for several reasons.

First, the Applicant anticipates that the SMAQMD will limit sulfur dioxide emissions from the plant to the levels shown in the AFC. Applicant further anticipates that these sulfur dioxide emission limits will be enforced through periodic (annual) source test requirements.

Second, the staff's suggestion that SO<sub>2</sub> emissions be reassessed based on the maximum theoretical sulfur content of the fuel is inconsistent with the staff's practice of evaluating CEQA impacts based on a "reasonable worst case" as opposed to an absolute worst case, as discussed above. Further, the staff's suggestion that SO<sub>2</sub> emissions be recalculated based on an assumed sulfur content of 1 grain/100 scf is inconsistent with the staff's treatment of this issue in other proceedings, as shown in the following table, which summarizes the assumed fuel sulfur content, maximum sulfur dioxide emission rate, and sulfur-related permit conditions for a number of projects that have filed applications with the CEC.

---

<sup>8</sup> Commission Decision, High Desert Power Project (97-AFC-1), p. 101

# Sacramento Municipal Utility District

## Comments on the Cosumnes Power Plant

### Preliminary Staff Assessment, Set 1

#### SUMMARY OF FUEL SULFUR/SOX EMISSION RELATED PARAMETERS

Project	Fuel Sulfur Assumption (gr/100 scf)	SOx Emission Rate (lbs/hr)	Permit Conditions
Blythe Energy	0.5	2.7	AQ-2: 0.5 gr/100 scf (12-month rolling average basis, monthly fuel analyses) AQ-5: 2.7 lbs/hr (annual source tests)
Contra Costa	1.0	6.18	AQ-13: 1 gr/100 scf (monthly fuel analyses) AQ-20: 6.18 lbs/hr (annual source tests)
Delta Energy Center	4 ppm	1.49	AQ-27: 0.0007 lbs/MMbtu, 1.49 lbs/hr (annual source tests)
Elk Hills	0.75	3.6	AQ-10: 0.75 gr/100 scf (Subpart GG monitoring schedule) AQ-15: 3.6 lbs/hr (fuel analyses, mass balance)
High Desert	0.2	1.11	AQ-5: 0.2 gr/100 scf (12-month rolling average basis, monthly fuel analyses) AQ-29: 1.11 lbs/hr (annual source tests or mass balance)
La Paloma	0.75	3.73	AQ-7: 0.75 gr/100 scf (Subpart GG monitoring schedule) AQ-12: 3.73 lbs/hr (fuel analyses, mass balance)
Los Medanos	1	6.2	ATC-14: 1 gr/100 scf (monthly fuel vendor certifications) ATC-21: 6.2 lbs/hr (annual source tests)
Western Midway Sunset	0.75	3.9	AQ-10: 0.75 gr/100 scf (Subpart GG monitoring schedule) AQ-15: 3.9 lbs/hr (fuel analyses, mass balance)
Moss Landing	0.25	1.3	AQ-15: 1.30 lbs/hr (annual source tests)
Mountainview Power	0.25	1.42	AQ-11: 1.42 lbs/hr (initial source test)
Otay Mesa	0.75	4.5	AQ-8: 0.75 gr/100 scf
Pastoria	0.75	3.495	AQ-11: 0.75 gr/100 scf (Subpart GG monitoring schedule) AQ-18: 3.495 lbs/hr (3-hr average, fuel analyses, mass balance)
Sunrise Power	0.75	3.85	AQ-9: 0.75 gr/100 scf (Subpart GG monitoring schedule) AQ-15: 3.85 lbs/hr (3-hr average, fuel analyses, mass balance)

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant

#### Preliminary Staff Assessment, Set 1

#### SUMMARY OF FUEL SULFUR/SO<sub>x</sub> EMISSION RELATED PARAMETERS

Project	Fuel Sulfur Assumption (gr/100 scf)	SO <sub>x</sub> Emission Rate (lbs/hr)	Permit Conditions
Sutter	0.75	3.7	AQ-32: 3.7 lbs/hr (3-hr average, annual source tests) AQ-33: 1 ppmv SO <sub>2</sub> (calendar day average)
Three Mountain Power	0.4	1.24	AQ-27: 0.4 gr/100 scf (monthly reports from fuel suppliers) AQ-38: 1.24 lbs/hr (fuel analyses, mass balance)
Cosumnes Power Project	0.25	1.3	To be determined by SMAQMD and CEC

As shown in the above table, only two of the 15 projects shown and approved by the Commission have assumed that the sulfur content of natural gas is at the maximum allowed by the PUC. The remaining projects assumed varying sulfur contents, ranging between 0.2 gr/100 scf and 0.75 gr/100 scf. In none of the 15 cases was continuous monitoring of the fuel sulfur content required. The most frequent fuel monitoring requirement was on a monthly basis, and for three projects no monitoring of fuel sulfur levels was required. Consequently, the Applicant believes that the SO<sub>x</sub> emission rates proposed for the Cosumnes Power Project are reasonable and consistent with good engineering practice. As noted above, the Applicant expects that these emission rates will be enforced through permit conditions similar to those required of other projects.

Applicant further believes that it has provided sufficient mitigation to account for the Project's SO<sub>2</sub> emissions even if those impacts are found to be significant, based on the criteria often used by the staff, and most recently applied to the Tracy Peaker Project (TPP). Although the Staff Assessment for the TPP project does not clearly set forth the calculations that led the staff to its conclusion regarding the significance of the air quality impacts, based on past experience the Applicant believes that the calculation was simply based on a comparison of project emissions with emission reduction credits, ensuring that the quantity of emission reduction credits provided is at least as great, on a 1:1 basis, as the project emissions requiring mitigation.

The following two tables show this comparison for the TPP and CPP projects, respectively. For TPP, as expected, the analysis demonstrates that the ERCs provided by the project applicant are at least as great as the project's emissions, on a one-for-one basis, without regard to the benefits of the local mitigation program. The comparable analysis for CPP reaches the same conclusion, except for CO emissions and SO<sub>x</sub> emissions. With respect to CO emissions, the CEC staff has never alleged that a power project would result in significant CO air quality impacts that require further mitigation, and no such allegation has been made in this case. With respect to SO<sub>x</sub> emissions, the slight net increase in emissions (2.58 tons/year) is more than mitigated by the net PM<sub>10</sub> decrease of 20.58 tons/year.

# Sacramento Municipal Utility District

## Comments on the Cosumnes Power Plant

### Preliminary Staff Assessment, Set 1

These tables demonstrate that if the air quality mitigation provided for the Cosumnes Power Project is evaluated in a manner consistent with the staff's analysis of other projects, the correct conclusion is that all of the Project's air quality impacts have been mitigated at a ratio of at least 1.0:1.

These tables also highlight another important factor. When evaluating the suitability of the location of the mitigation provided, these data demonstrate that the mitigation proposed for the CPP project is, overall, provided from sources located much closer to the project site than was the case for the TPP project. The weighted average distances for VOC, NOx, SOx and PM<sub>10</sub> mitigation provided for the TPP project ranged between 46 and 213 miles from that project's location. In contrast, the weighted average distances for these same pollutants ranges between 1 and 33 miles from the Cosumnes Power Project.

In conclusion, when evaluated in the same manner as has been used by the staff in other proceedings, the Applicant believes it is clear that all of the SOx emissions from the CPP project have been mitigated (even if such mitigation is required). The same holds true for the remaining nonattainment pollutants.

Tracy Peaker Project CEC Mitigation Summary							
			Emissions (tpy)				
			VOC	CO	NOx	SOx	PM10
			13.37	71.62	153.46	5.60	82.40 SA Air Quality: Table 23
Project Emissions							
Offsets							
Certificate Number	Location	Nominal Distance to TPP (mi)					
N-244-2	Tracy	3.9			19.10		SA Air Quality: Table 24
N-289-3	Manteca	16.0		84.84			SA Air Quality: Table 28
N-130-5	Stockton	20.0				33.25	SA Air Quality: Tables 25, 27
N-256-5	Stockton	20.0				50.00	SA Air Quality: Table 25
N-282-4	Stockton	20.0					36.60 SA Air Quality: Table 25
N-226-4	Turlock	38.3					7.14 SA Air Quality: Table 25
C-278-2	Mendota	90.0			13.69		SA Air Quality: Table 24
C-382-4	Fresno	116.0					6.15 SA Air Quality: Table 25
C-394-4	Raisin City	117.0					5.84 SA Air Quality: Table 25
C-392-5	Hanford	140.0				1.04	SA Air Quality: Table 25
C-413-5	Hanford	140.0				11.18	SA Air Quality: Table 25
C-442-5	Hanford	140.0				5.66	SA Air Quality: Table 25
C-445-5	Hanford	140.0				4.83	SA Air Quality: Table 25
S-1505-4	Devil's Den	158.0					0.50 SA Air Quality: Table 25
S-1452-4	Pixley	171.0					6.19 SA Air Quality: Table 25
S-1442-4	Earlimart	176.0					2.54 SA Air Quality: Table 25
S-1615-2	Elk Hills	203.0			37.24		SA Air Quality: Table 24
S-1618-2	Elk Hills	203.0			80.00		SA Air Quality: Table 24
Source A	Elk Hills	203.0			27.22		SA Air Quality: Table 24
S-1624-3	Oildale	210.0		1.06			SA Air Quality: Table 28
S-1623-2	South Coles Levee	211.0			7.29		SA Air Quality: Table 24
S-1623-3	South Coles Levee	211.0		0.32			SA Air Quality: Table 28
S-1538-1	Bakersfield	213.0	20.05				SA Air Quality: Table 26
S-1626-2	Bakersfield	213.0			25.87		SA Air Quality: Table 24
Totals			20.05	86.22	210.41	105.96	64.94
Interprecursor SOx->PM10						-34.92	17.46 2.00 interprecursor ratio
Net Increase (Decrease)			-6.68	-14.60	-56.95	-65.44	0.00
Weighted Average Distance from TPP to ERCs			213	19	179	46	61

# Sacramento Municipal Utility District

## Comments on the Cosumnes Power Plant

### Preliminary Staff Assessment, Set 1

Cosumnes Power Project						
CEC Mitigation Summary - Tracy Peaker Project Formulation						
		Emissions (tpy) - Phase I Only				
		VOC	CO	NOx	SOx	PM10
Offsets	Project Emissions	30.00	365.40	125.55	10.95	79.50 PSA Air Quality Table 3
ERC Source	Nominal Distance to CPP (mi)					
Formica	36	207.10				
Swanson's	24	36.33				
Proctor & Gamble	20	50.00		16.70		22.54
Donner Furniture	29	1.30				
Burns Philip Food	38	0.02		1.00		
Holly Sugar	42	1.88		46.88		
Blue Diamond Growers	26	3.15		11.63		6.72
Ag Containers	22	5.88				
American River Asphalt	19	1.54		1.98	1.60	2.79
Rancho Seco	0	0.56			68.36	2.30
General Mills	42			1.80		
Campbell Soup	22			7.97	0.35	1.71
Poppy Ridge Partners	17				0.16	1.87
Grace Industries	17				3.92	7.13
Elk Grove Ready Mix	18					2.90
Road Paving 02-00767	4.5					3.08
Road Paving 02-00768	5.5					5.75
Road Paving 02-00769	1.8					9.24
Road Paving 02-00770	15					4.21
Road Paving 02-00771	14					4.36
Road Paving 02-00772	12					15.03
Road Paving 02-00773	4.3					9.44
Road Paving 02-00774	5					6.65
Road Paving 02-00775	8					1.64
Less: surplus ERCs to be refunded:		-1.68			-66.02	-7.28
<b>Totals</b>		306.08	0.00	87.96	8.37	100.08
<b>Interprecursor VOC-&gt;NOx</b>		-97.73		37.59		2.60 interprecursor ratio
<b>Interprecursor SOx-&gt;PM10</b>						1.7-3.3 interprecursor ratio
<b>Net Increase (Decrease)</b>		-178.35	365.40	0.00	2.58	-20.58
<b>Weighted Average Distance from CPP to ERCs</b>		32	NA	33	13	14

p. 4.1-30, Construction Conditions of Certification: The Applicant would like more time to analyze these conditions and provide comments to the CEC. Comments will be provided with comments on the outstanding sections of the PSA.

## **BIOLOGICAL RESOURCES**

SMUD appreciates the effort staff has made to prepare an assessment of this large and complex project. We endorse the content of this section with the following changes for clarity and to provide conclusions that are supported by substantial evidence.

p. 4.2-4, para. 1: SMUD suggests a correction that the Cosumnes is the last “major” undammed river on the western slope of the Sierra Nevada.

p. 4.2-4, para. 2: SMUD suggests deleting the word “essential” in describing habitat to avoid confusion with the legal designation of habitats which area “essential habttat units” or “essential habitat.” Neither designation is appropriate in this context.

p. 4.2-4. “There are large trees around the reservoir, which can provide nesting habitat for Swainson’s hawk and other bird species including white tailed kites and red-tailed hawks. “ With respect to Swainson’s hawk specifically, this statement is conclusory. It should be

**Sacramento Municipal Utility District**  
Comments on the Cosumnes Power Plant  
Preliminary Staff Assessment, Set 1

stated that there have been numerous biological surveys of the reservoir area and surrounding trees, there are no records of nesting Swainson's hawks.

p.4.2-4, para. 2: SMUD would like staff to note that farming activities such plowing, irrigation and harvesting corn, wheat, and alfalfa also take place within the preserve area.

p. 4.2-5. Critical Habitat: Designated critical habitat for fishes... SMUD notes that designated critical habitat includes all river reaches that are accessible to listed salmonids. As noted in the AFC prepared by SMUD, the Cosumnes River is generally dry during summer months in the area that would be crossed by the proposed pipeline. By this definition the river is not accessible to fishes during that part of the year when construction would occur. SMUD suggests that additional language be included here to clarify that construction is expected to be during the dry season when salmonids would not be present.

p. 4.2-6, Power Plant Site and Laydown Area, para. 1: The 30-acre power plant site and the 20-acre laydown area consist of annual grassland with wetlands dispersed throughout the site. SMUD believes this is not an accurate characterization of the site. The project site and laydown areas were selected to reduce impacts to wetlands. The project site and laydown area are crossed by 2 seasonal swales ranging in width from 1 to 10 feet across, and bordered on the north edge by a seasonal swale that is tributary to Clay Creek. Dispersed vernal pools, the mine tailings ponds and Clay Creek are located predominantly east and north of the project site.

p.4.2-6, Power Plant Site and Laydown Area, para. 2, : Clay Creek cross north of the proposed plant site. Also, please modify the description to indicate that there are degraded swales not degraded vernal pools.

p. 4.2-7; Table 1. The title should be modified to read "Sensitive Species and Natural Communities Reported to Occur in the CPP Project Area." The list is a useful way to evaluate habitat and records for species that may occur in the project area.

p. 4.2-8. The paraphrase of the ACOE Habitat Mitigation and Monitoring Proposal Guidelines should include the intervening sentence that states:

"The 404(b)(1) Guidelines state that no discharge of dredged or fill material shall be permitted if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem so long as the alternative does not have other significant adverse environmental consequences."

Staff requested SMUD provide an analysis describing the adverse environmental consequences associated with the alternatives to the project that were considered, which is under preparation.

p. 4.2-9, para. 5: SMUD suggests the following revision: "Protocol-level surveys for burrowing owls were ~~only~~ conducted on the project site and along the proposed pipeline corridor. Burrowing owls were seen only at known locations along Sims road near the SRWTP (R. Huddleston, Technical Memorandum April 14, 2002).

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant

#### Preliminary Staff Assessment, Set 1

p. 4.2-10, Transmission Line: SMUD suggests the following revision: “location of the towers are within 250 feet of several wetland features or degraded swales that exist between the plant site and the Rancho Seco ~~Nuclear Facility Plant~~.”

p.4.2-10, Access Road: The paved access road will be 24-feet wide. The 25-foot-wide construction area will only be needed for 3 months.

p. 4.2-10, Access Road: SMUD suggests the following revision: “annual grassland habitat and would cross several seasonal swales ~~and vernal pools~~.”

p. 4.2-11, para. 1. SMUD suggests the following revision: “goes through the edge of the Laguna Stone Lakes Preserve, which is a vernal pool mitigation area created to mitigate for impacts from residential development. SMUD sited the proposed pipeline along the edge of the reserve, to reduce impacts to wetlands.”

p. 4.2-11, para. 4: SMUD suggests the following revision for clarity: “Giant garter snakes are present along the gas pipeline route in the Badger Creek and Cosumnes Preserve ~~area as well as potentially occurring in any of the~~ drainage canals or wetlands with suitable habitat near Franklin and Core Roads.”

p. 4.2-11, para. 5: SMUD suggests the following revision for clarity: Six Swainson’s hawk nests have been recorded ~~all along~~ within one-half mile of the gas pipeline route (CNDDDB 2002).

p. 4.2-11, para. 6: SMUD suggests the following revision for clarity: ~~Several trees were~~ One heritage tree was identified by SMUD within the pipeline construction corridor ~~along the gas pipeline route~~, which meets the guidelines for heritage trees as defined by the Sacramento County Tree Preservation Ordinance...” “Additional trees may occur in the Cosumnes Preserve, but this area would be avoided by using HDD construction.”

p. 4.2-12, para. 2: Please add that no foraging raptors or stick nests were observed in these trees during a site visit on April 2, 2002 (EJ Koford, personal comment).

p. 4.2-13, Permanent and Temporary Loss, para. 1: SMUD suggests the following revision for clarity: There would be a permanent loss of wetland habitat, and both temporary and permanent losses of uplands as a result of construction of the CPP and the associated facilities. In re-aligning the wetland swales around the proposed facility, construction of the CPP would also create new wetland habitat of equivalent length and width to that which would be permanently lost. The estimated amount of habitat ~~impacted~~ affected, if listed, is based on information provided in the Biological Resources Assessment and the wetland delineation reports...”

p. 4.2-13 Permanent and Temporary Loss, para. 2: This paragraph has several problems and needs careful review. For example, sentences do not make sense, definitions are not consistent with USFWS programmatic agreements for GGS and there is no basis for significance criteria.

p. 4.2-13, para. 3: Table 2 provides an estimate of potential construction impacts if the full construction width is disturbed. Total temporary impacts as a result of pipeline



**Sacramento Municipal Utility District**  
**Comments on the Cosumnes Power Plant**  
**Preliminary Staff Assessment, Set 1**

construction is conservatively estimated based on the full length (26 miles) times the full available width (65 feet) of the construction zone, without reductions for HDD areas or areas where the construction corridor will be narrowed to avoid walls, roads, the heritage trees, adjacent canals or other features. SMUD anticipates that 205 acres represents the maximum potential affected area from construction. Similar assumptions are used for each of the project components. SMUD suggests the following revision for clarity: Table 2 should be titled “Estimated Maximum Permanent and Temporary Area of Impacts to Habitat.”

p. 4.2-14 , para. 3: This paragraph also has several issues with this language and SMUD disagrees with its content, wording and interpretation of USFWS references. The general theme is that temporary indirect impacts are permanent and significant, which is not correct.

p. 4.2-14, para. 3: “SMUD has not calculated the amount of giant garter snake habitat that would be impacted...” The Biological Resources Assessment (pages 26-27), which is referenced by the CEC PSA, provides additional information about potential impacts to giant garter snake that might be helpful to CEC staff. Note that the BRA states that a total of 13.35 acres of giant garter snake habitat would be disturbed by either direct or indirect impacts.

p. 4.2-14, para. 4: “Vernal pool crustacean habitat is impacted permanently if it is disturbed indirectly or directly by project activities.” This statement is inconsistent with USFWS Policies and guidance.

p. 4.2-14, para. 4: “any disturbance within 250 feet of a pool or complex would result in a significant impact to that pool.” SMUD suggests this statement be revised to be consistent with the USFWS policy:

“Habitat indirectly affected includes all habitat supported by destroyed upland areas and swales, and all habitat otherwise damaged by loss of watershed, human intrusion, introduced species, and pollution caused by the project (see Effects of the Proposed Action below). Where the reach of these effects cannot be determined definitively, all habitat within 250 feet of proposed development may be considered to be indirectly affected. If any habitat within a vernal pool complex is destroyed, then all remaining habitat within the complex may potentially be indirectly affected.”

p. 4.2-14, para. 4: “any disturbance within 250 feet of a pool or complex would result in a significant impact to that pool.” SMUD suggests this statement be revised to be consistent with the USFWS policy, that states that mitigation for non-natural habitat may be adjusted.

Specifically, from USFWS 1996:

“For non-natural habitat (habitat created de novo by human activity), habitat that is significantly altered and without restoration potential, and habitat indirectly affected by agricultural practices, mitigation may be adjusted.”

SMUD requests the language be revised to be consistent with the USFWS guidance.

**Sacramento Municipal Utility District**  
Comments on the Cosumnes Power Plant  
Preliminary Staff Assessment, Set 1

p. 4.2-14, para. 4: "Although midvalley fairy shrimp and California linderiella fairy shrimp are not included in the Programmatic Biological Opinion, they occupy similar niches and would be impacted by loss of habitat." SMUD suggests that since the presence of these species is speculation, that the statement should be revised to say "could be adversely affected by loss of habitat."

p. 4.2-14, para. 5: "Staff notes that the acreage amount calculated by SMUD does not include all of the wetlands or the entire invertebrate habitat. . ." SMUD respectfully disagrees with CEC staff and is willing to discuss our methodology and calculations in a workshop.

p. 4.2-15, para. 2: "The SMUD preferred gas pipeline route would result in significant impacts to the Laguna Stone Lakes Preserve. Impacts would result from construction of the gas pipeline through the mitigation area." SMUD believes these statements, without evidence are conclusory. CEC staff have presented no evidence that the pools in this area are connected hydrologically to the area where construction would occur, nor how this would be significant. The statement should be preceded by presentation of the evidence that there would be significant impacts.

p. 4.2-15, para. 3: "The need to establish a permanent easement and conduct routine maintenance during operations of the CPP could result in ongoing disturbance to the area." There would be no road over most of the pipeline, contrary to CEC staff assertion that there would be ongoing disturbance.

p.4.2-15, para 3: Staff indicates impacts from the pipeline route in the Preserve area are unmitigable. SMUD disagrees since this area is already a recognized utility corridor, subject vernal pools were "created" by human effort, and hence, can be easily restored and/or otherwise moved or compensated.

p. 4.2-16, para. 2: "The proposed water pipeline and the transmission line corridor crosses seasonal swales, a historical vernal pool remnant, and degraded pools . . ." SMUD is not certain that the degraded swale was at any time a "historical vernal pool" but will research the matter.

With respect to whether the pools would be impacted significantly by construction activity, please see the previous comment addressing the manner in which USFWS addresses indirect and temporary impacts. SMUD believes that the potential for construction of the water supply line and transmission line to significantly affect the biological quality of these pools is very low.

p. 4.2-16 Table 3: This table needs to be revised based on the areas of vernal pool habitat and wetland habitat provided to CEC staff both in the BRA and in the ARCVIEW Data files provided, and in consultation with USFWS, ACOE, CDFG and NMFS. SMUD cautions that as shown the table appears to "double count" seasonal wetland habitat as both upland and wetland habitat, and potentially giant garter snake habitat.

p. 4.2-16, Rare Plants: SMUD suggests the following revision for clarity:

"None of the sensitive plant species were found within the construction corridor during SMUD's special-status plant surveys, although they are known to occur at the

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

Laguna Stone Lake Preserve site. Construction within the proposed corridor through the Preserve site appears to avoid all known locations of sensitive plants. If construction disturbs or interrupts the hydrology of pools supporting sensitive plant species, significant impacts could occur. Pre-construction surveys, corridor delineation and enforcement would minimize the potential for adverse impacts to sensitive plants.

p. 4.2-16, Heritage Trees: “SMUD identified several heritage trees along the gas pipeline route.” SMUD suggests the following revision for clarity:

“SMUD identified one heritage tree within the construction corridor of the gas pipeline route. This tree would be fenced at the dripline and avoided by construction.”

p. 4.3-17, Heritage Trees: The final page of Resolution No. 81-1097, the Tree Preservation Ordinance of the Sacramento County Code shows a map of the area covered by the Tree Ordinance. The furthest south point is Grant Line Road and Highway 99. The Cosumnes River crossing is further south and outside the area of application of the ordinance.

SMUD did not survey trees in the riparian area of the Cosumnes River both because it is beyond the limit of the ordinance, and it believes that surveying in this area, including access to a preserve during nesting season, and cutting vegetation that is described as “impenetrable” as well as removing vegetation from tree trunks to measure diameters would potentially cause more adverse environmental impacts than planning to avoid impacts to them. From a distance it is clear that trees of greater than 6 inches in diameter occur in this area and avoiding damage to them should be a part of planning for the HDD.

SMUD committed in the Biological Workshop, before both CEC staff and CDFG that the HDD contractors would be required to use a wireless guidance system that would not allow removal of any trees or shrubs. SMUD further testified and provided ARCVIEW files showing that the project construction area and boring sites would be located 150 feet back from riparian vegetation. SMUD believes it has adequately responded to CEC and CDFG’s concern for vegetation removal from guidance systems and equipment laydown areas.

With respect to frac-outs potentially injuring trees, it is our experience that this is unlikely. SMUD also suggests that the potential for adverse impacts as a result of heritage tree surveys exceeds the probable impacts of the HDD and therefore requests that CEC staff reconsider their request to perform heritage tree surveys in the Cosumnes riparian corridor.

p. 4.2-17, Valley elderberry longhorn beetle, sent. 4: “Adverse impacts to any elderberry plants . . .” SMUD suggests the following revisions for clarity:

Adverse impacts to any elderberry plants that support valley elderberry longhorn beetle (VELB) that would result in significant impacts. to the valley elderberry longhorn beetle. Suitable plants are defined by the USFWS as having stems greater than 1 inch in diameter. Evidence of presence consists of exit holes. SMUD believes that the distance between construction and the elderberry shrubs will be sufficient to avoid impacts, and therefore, measured shrubs or examined them for evidence of VELB. If the USFWS believes that additional characterization is

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

necessary to avoid impacts, SMUD will provide additional information. Impacts to elderberry plants that support valley elderberry longhorn beetles ~~would result in “take,” which is prohibited unless authorized pursuant to~~ requires an USFWS incidental take permit under Section 7 of the Federal Endangered Species Act.”

p.4.2-17, Fisheries, para 2: The statement is made that SMUD’s contract expires in 2008. The contract, currently being renegotiated, expires in 2012.

p. 4.2-18, para. 1. As noted during workshops, and testified to by Mr. Cecil Leslie of the US Bureau of Reclamation, the Bureau operates the diversion into the Folsom-South Canal under existing authorizations with the USFWS. It is inaccurate to state that these issues have not been considered, in light of the evidence provided. Discussions and comments to the water section provide additional detail. SMUD suggests that any discussion of water supply should include reference to the existing agreements under which USBR operates, and by which it complies with the federal requirements.

p. 4.2-18, para. 2. “There is potential for bentonite to leak to the water body surface. . .” Please note that SMUD has always proposed to do the HDD during the season when this portion of the Cosumnes River is typically dry (Whitener, personal comment). This would minimize the potential impacts of a frac out to water quality. SMUD believes the paragraph would be more correct to include a discussion of the avoidance and minimization measures as proposed by SMUD.

p. 4.2-19, Giant garter snake: “Since the populations that would be impacted . . .” It isn’t clear what area is being discussed here, but SMUD agrees that giant garter snake are known from the Badger Creek drainage. The CNDDDB localities are generally east of Highway 99 and north of the proposed alignment, and SMUD feels the pipeline alignment is far enough away to avoid significant affect. The portion of Badger Creek that would be crossed by the pipeline is dry or nearly so in summer when construction would be proposed. SMUD will implement appropriate avoidance and minimization measures to avoid impacts to giant garter snakes and their habitat.

p. 4.2-19, Western burrowing owl: Complete burrowing owl survey results have not been provided to staff.” Surveys were reported in a technical memorandum dated April 12, 2002 and reported to CEC staff during workshops. Surveys of the pipeline and project site were completed in 2002 and resulted in detecting only the one known nest along Sims Road. This nest is within the SRWTP buffer lands and is located approximately 1,200 feet from the pipeline. SMUD will keep CEC staff apprised of any burrowing owls observed along the pipeline and project site.

p. 4.20-2, para. 2: “Surveys should be conducted out to 500 feet from the impact zone.” The guidelines are suggestions for evaluating impacts to burrowing owls, and in the case of the project site, or any static site where construction will occur over a protracted period, this may be appropriate.

For the pipeline, where construction will generally move through in a week or so, SMUD believes this width is excessive. First, avoidance is only recommended when disturbance is

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

within 250 feet of a burrowing owl nest. Second, the guidelines suggest surveyors be separated by no more than 100 feet. Covering 26 miles by 6-8 “swaths” would be unnecessarily expensive and time consuming for SMUD when compared to the benefit gained. Furthermore, getting private landowner access to all the necessary areas is daunting. The CDFG guidelines are instructive in the information that CEC did not quote:

“The project site and a 150-meter (approximately 500 ft.) buffer (where possible and appropriate based on habitat) [emphasis added] should be surveyed to assess the presence of burrowing owls and their habitat.”

SMUD suggests that pre-surveying the pipeline corridor for 100 feet on either side of the 65-foot-wide corridor (or as appropriate given intervening barriers such as roads, berms, walls or houses) is more appropriate. As noted above, surveys from this year do not support a finding that there are likely to be adverse impacts to burrowing owls from pipeline construction.

p. 4.2-20, para. 3: “Staff has asked SMUD for a figure that depicts the areas where small mammal burrows are located based on survey results.” SMUD has noted that habitat is potentially suitable for burrowing owls near the project site and along the pipeline alignment. SMUD has completed surveys in 2001 and 2002 for the project site and 2002 for the pipeline and project site and reported the results. SMUD has acknowledged that if a burrowing owl were to nest within the construction corridor, avoidance or exclusion measures might become necessary. SMUD has agreed to pre-construction surveys to reduce the potential for adverse impacts. SMUD does not believe that the effort and cost required to prepare a figure of mammal burrows, which may or may not have significance for burrowing owls. The burrowing owl guidance to which CEC refers states that reports should include:

“Results of transect surveys including a map showing the locations of all burrow(s) (natural and artificial) and owl(s), including the numbers at each burrow if present and tracks, feathers, pellets, or other items (prey remains, animal scat)”

SMUD believes the guidelines refers to reporting the location of all owl burrows, and not all mammal burrows.

p. 4.2-20, Swainson hawk: “There are approximately 13 potential nest sites along the gas pipeline based on surveys reported by SMUD.” To be clear, the information provided compiles historical data for approximately the last 20 years and the number of potential nests sites is not the same as the number of potential nests. SMUD believes there are likely to be 6 or fewer active nests within 0.5 mile of the pipeline corridor and project site. It is unlikely that multiple Swainson’s Hawk nests will be active closer to one another than a 0.5 mile in any single year. Therefor the three nest locations reported near Franklin and Core Road probably only represent one nest in any given year. Similarly the cluster at Highway 99 and the pipeline probably represent one or two nests in any given year. As noted by SMUD Swainson’s hawks may or may not be active at each of these locations, and may nest in new locations during the year of construction. This could only be determined definitively by pre-construction surveys. SMUD is prepared to work closely with CDFG to determine the

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

location of nests that could be disturbed by construction and to implement avoidance, minimization or monitoring methods to reduce impacts to these important birds.

p. 4.2-20, Swainson hawk: “SMUD has provided the information to staff in a report. . .” The most “up-to-date” data on locations of known Swainson’s hawk nests comes from CDFG, who provided it to CEC staff prior to sharing it with CH2M HILL on March 11, 2002. This information, along with the locations in the CNDDDB and a new location found by CH2M HILL (near Laguna Creek) were provided to CEC staff on July 30, 2002 (Data Response Set 3F ).

p. 4.2-20, Swainson hawk:: “Construction activities within 0.5 mile of a nest tree would result in significant impacts to nesting pairs.” This statement is conclusory and inaccurate. CDFG advises that construction activities greater than 0.5 mile from the nest do not require additional monitoring. However, there are numerous cases of construction at much closer distances to successful Swainson’s hawks, and even of hawks coming to nest near construction. SMUD believes it is appropriate that for any historical or current location where an active Swainson’s hawk nest is closer than 0.5 mile to construction, that SMUD should consult with CDFG about monitoring or other appropriate measures to minimize potential adverse impacts to Swainson’s hawk. After consultation with CDFG, SMUD is confident that all construction, including those areas of the pipeline that are closer than 0.5 mile can be performed without harm to nesting pairs.

4.2-21, Noise, para. 2: SMUD would like to clarify that while pile driving was not anticipated, it still considers pile driving an option pending a final engineering design determination.

p. 4.2-23, Water Use, para. 1: SMUD suggests the following revisions for accuracy:

“All of the major Central Valley rivers in California except for the Cosumnes River are dammed, which limits the amount of anadromous fish spawning habitat available for reproduction.”

p. 4.2-23, Water Use, para. 1: “Through water conservation. . .” SMUD believes this is a conclusory statement without support. The analysis provided in the previous paragraph ignores the manner in which USBR manages the water supply and temperatures in the American River and delta according to releases from many different reservoirs. As Cecil Leslie of USBR has stated during CEC staff workshops, there is no direct relationship between water quality and flows in the American River and this particular project.

p. 4.2-23, Water Use, para. 3: SMUD proposes to reword the paragraph to read, “SMUD could lessen its contribution, if any, to the cumulative impacts to the Lower American River by using reclaimed water instead of fresh in-land water. In addition, in the event that the USBR is unable to make the full deliveries, SMUD may have a water source that would allow it to continue producing power.”

p. 4.2-24, para. 1: “EBMUD has been required to change the place of diversion.” SMUD believes this is an incorrect characterization. EBMUD agreed to a negotiated compromise in

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant

#### Preliminary Staff Assessment, Set 1

part because the original appeal to activate a diversion at Nimbus was not upheld. Along with being potentially inaccurate, it is not clear how a discussion of EBMUD is relevant to the CPP project analysis. CEC staff should either provide a basis and explain the relevance to biological resources or delete the paragraph.

p. 4.2-24, para. 2: “. . .there is some uncertainty that the federal contract can be renewed for the existing amounts, without resulting in a significant impact to fisheries.” Again this statement without evidence appears to be speculation. If it can be referenced to an expert in the field, it would be a better statement. SMUD notes that this information does not appear to be relevant or supportive to any argument in the biological evaluation of the PSA and should be deleted.

p. 4.2-24, Mitigation Measures: It should be noted that these bullets are brief summaries of preliminary mitigation measures proposed in the BRA.

p. 4.2-25, Restoration of the Laydown Area: “Native vegetation will be used. . .” SMUD notes that in many instances it is impractical to restore native vegetation (such as bunch grasses) if isolation from mediterranean grasses and weed seed cannot be maintained. SMUD suggests the following revision: “Native vegetation will be used where possiblepractical and feasible.”

p. 4.2-25, Mitigation for Vernal Pool, para. 2: This information is incomplete without the evidence on which the 0.2:1 ratio is based. The BRA provides the following evidence that should be included to provide the evidence on which the determination of a mitigation ratio is made:

“The USFWS guidance of 1996 did not address temporary impacts, potentially because at the time there were no data on recovery of temporarily disturbed vernal pools. In 1997, SMUD submitted monitoring data on the Cogeneration Natural Gas Pipeline and Procter and Gamble Cogeneration Projects that showed 91% recovery of fairy shrimp after pipeline construction. Based in part on those data, and a confirmation of the actual disturbance during construction, the USFWS issued an amendment to the Formal Section 7 consultation reducing the mitigation from an approximately 200-acre mitigation bank on Rancho Seco, to a 9.65 acres site. The mitigation site and a buffer around the site were set aside by recording a conservation easement on the mitigation site and buffer. The mitigation site supports a population of Sacramento Orcutt grass, as well as listed crustaceans. Based on the evidence that 90% of pools recover from temporary disturbance from pipeline construction, we believe a preservation ratio of 0.2:1 is appropriate. This ratio would mitigate for the 10% loss at a ratio of 2:1 or 20%. The referenced pipeline was 25 miles long with approximately 26 miles of lateral lines, and was compensated with 9.65 acres of preserved habitat. ”

(Sacramento Municipal Utility District (SMUD). 1997. Review of Mitigation Bank Requirements for SMUD’s Cogeneration Natural Gas Pipeline and Procter and Gamble Cogeneration Projects. Letter to Wayne White, USFWS. May 30.)

**Sacramento Municipal Utility District**  
Comments on the Cosumnes Power Plant  
Preliminary Staff Assessment, Set 1

USFWS. 1998. Amendment of the Formal Section 7 Consultation for the Sacramento Municipal Utility District (SMUD) Cogeneration Pipeline Project, Sacramento California (May 20.)

p. 4.2-25, Mitigation for Vernal Pool, para. 3: "SMUD also proposes to restore . . SMUD suggests the following revision for clarity:

~~"SMUD also proposes to restore, as part of mitigation for vernal pools, the degraded swales, vernal pools that are located north of the project site and south of the Rancho Seco Nuclear Plant."~~

p. 4.2-28, Habitat Compensation, para. 2: "There is also at least one burrowing owl burrow were pellets. . SMUD believes this overstates the evidence. The evidence of burrowing owl use consists of one pellet observed at a burrow approximately 0.25 mile north of the project site in 2001. If the burrow had been occupied or in use, it is likely that there would have been insect parts, feathers, whitewash or other individuals. The burrow was observed on several occasions in 2001 and 2002 with no further evidence of occupancy. SMUD believes the evidence contradicts the conclusion, and indicates that the owl may have fed in the vicinity of the burrow and departed without any occupancy. Burrowing owls regularly visit potential burrows and even enter them for cover for brief periods before settling on a nest burrow. Owls tend to have high fidelity to actual nest burrows, returning year after year if not disturbed. The CDFG guidelines state:

"A site should be assumed occupied if at least one burrowing owl has been observed occupying a burrow there within the last three years."

The evidence is not sufficient to meet that standard at this time. SMUD would like to see owls using the habitat, and endorses the idea of improving conditions for burrowing owls. The project anticipates that the location of this potential burrow will remain undeveloped for the foreseeable future and an owl could live there even when the power plant is operational. SMUD will remain vigilant for the potential presence and avoid impacts if possible to any burrowing owls on and near the site.

p. 4.2-28, Habitat Compensation, para. 3: "Construction of artificial burrows . . ." Although SMUD does not agree that the presence of active burrows is supported by evidence, building some artificial burrows may be a helpful enhancement to habitat to support this important species.

p. 4.2-28, Habitat Compensation, para. 3: "Compensation ratios as high as 10:1. . SMUD believes this statement is speculation without reference or evidence. Implementation of these ratios exceeds typical applications by USFWS or ACOE and is inconsistent with current policy. The typical wetland compensation ratios have already been provided on page 4.2-25. SMUD suggests this sentence be deleted.

p. 4.2-28, Habitat Compensation, para. 4: "Along the gas pipeline there would be short-term impacts. . ." SMUD suggests the following revisions for accuracy:

"Along the gas pipeline there would be short-term, temporary impacts to giant garter snake habitat. SMUD has proposed, in the BRA, mitigation consisting of avoidance.



## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant

#### Preliminary Staff Assessment, Set 1

~~minimization and restoration consistent with the USFWS Programmatic Consultation for giant garter snake that will reduce impacts to less-than-significant.” that requires habitat compensation to mitigate to less than significant levels. SMUD has not proposed habitat compensation for this species.”~~

p. 4.2-29, para. 2, and Table 4: “At this time, staff has not included. . .” SMUD provided habitat mitigation ratios for giant garter snake, vernal pool habitat, and wetland habitat in the BRA provided to the USFWS, CDFG, NMFS and CEC staff in early June 2002, and a complete ARCVIEW database of wetlands and affected habitat in July, 2002. SMUD is prepared to respond to any additional staff requests to provide any helpful data.

p. 4.2-29, Mitigation for Mortality or Injury, para. 1: “Prior to construction of the proposed CPP . . .” SMUD suggests the following from LECEF Proposed Conditions for Certification be substituted for the first two sentences:

“Site and related facilities (including any access roads, transmission lines, water and gas lines, storage areas, staging areas, pulling sites, substations, wells, etc) mobilization activities shall not begin until an Energy Commission CPM-approved Designated Biologist is available on-site. “

Revise sentence three to delete the reference to hiring: “~~The hiring of~~ A Designated Biologist...”

p. 4.2-30, Heritage Tree Protection, bullet 1: “SMUD survey the Cosumnes River Riparian Corridor . . .” As noted above in response to p. 4.3-17, Heritage Trees, SMUD believes that a survey in this area would potentially cause more disturbance and vegetation removal than benefit derived. In addition, SMUD does not believe that it is required by the County. SMUD reminds CEC staff that the alignment of the HDD corridor through the preserve was selected in consultation with Preserve staff and represents their best advice on avoiding impacts. Trees in the riparian corridor are adapted to periodic scouring and deposition of fine river clay during natural events. In the unlikely event that a frac out were to occur near large trees, SMUD would need to satisfy cleanup criteria set by CDFG. These measures are already part of the frac out plan. Therefore, SMUD suggests that this requirement be deleted.

p. 4.2-30, Preventative Design, bullet 3: “There are no discharges to Clay Creek (**BIO-12**).” The statement mis-states the SMUD proposal. It should read: “There are no industrial waste discharges to Clay Creek. Stormwater will be discharged to Clay Creek in compliance with NPDES discharge requirements (**BIO-12**).”

p. 4.2-30, Fisheries, para. 2, sent. 3: “The contingency plan would contain success criteria for cleanup activities.” SMUD notes that clean-up criteria are developed on a case-by-case basis by CDFG, which is part of the frac out plan. The sentence should be deleted as unnecessary.

p. 4.2-30, Valley Elderberry Longhorn Beetle, bullet 1: “Survey reports should include the branch diameter at ground level and presence of exit holes...” As noted above, the nearest elderberry shrubs to the alignment in the riparian corridor are more than 100 feet from construction, and therefore, SMUD believes these are adequately avoided without requiring

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

additional surveys. The results of the elderberry shrub survey were provided in the ARCVIEW data provided on July 30, 2002.

p. 4.2-31, California Tiger Salamander, para. 1: “Staff recommends that SMUD complete a second year survey that follows the CDFG guidelines (1997) and submit the results (**BIO-18**).” SMUD notes that CEC staff made reference to drift fences in the second-year survey. After consulting with the expert herpetologist, SMUD suggests that a second-year survey is appropriate, but without drift fence surveys. Based on the first year’s survey, known breeding localities are more than 0.62 miles away and the site itself has very few burrows for potential aestivation sites. The potential for tiger salamander to be present is low. The requirement for drift fence surveys was added to the tiger salamander survey protocol recently and its use is controversial, with many investigators finding unacceptable collateral mortality of small mammals, reptiles and amphibians. SMUD believes that drift fence surveys would have more negative impacts than benefits and should not be part of the second year survey.

p. 4.2-32, para.1: “Staff recommends that SMUD set up and conduct a bullfrog eradication program . . . After consulting with expert herpetologists, SMUD believes that there is no evidence that a bullfrog eradication program will be effective in this area. According to Dr. Mark Jennings, Bullfrog control is only effective where the goal is to remove an isolated population that cannot be reestablished by colonization.

The project site is in the vicinity of Rancho Seco Reservoir, the mine tailings ponds, numerous stock ponds, Clay Creek and Hadselville Creek. All contain large populations of bullfrogs. One female bullfrog can lay 10 to 20 thousand eggs, and some females can lay two clutches per year. Therefore, SMUD requests the requirement for a bullfrog eradication program be eliminated.

p. 4.2-32, para. 2: “However construction of the CPP would result in an adverse impact to California tiger salamanders that are aestivating in the project area.” SMUD believes this statement is incorrect. According to the current evidence and survey data, it is unlikely that any tiger salamanders are present on the project site. Dry season trenching would minimize the potential to adversely impact any salamanders, if present. SMUD suggests that the sentence be modified as follows:

“Construction of the CPP could result in an adverse impact to California tiger salamanders if any were present in the project area. Based on current survey data and known records, the likelihood of any being present is low.”

p. 4.2-32, Giant Garter Snake, para. 1: “The ACOE, as the federal lead agency . . .” SMUD suggests the following revisions for accuracy:

“The ACOE, as the federal lead agency, may choose to consult with the USFWS to obtain a Biological Opinion from the USFWS, through the Section 7 process that would contain . . .”

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant

#### Preliminary Staff Assessment, Set 1

p. 4.2-32, Giant Garter Snake, para. 1: “Staff recommends that SMUD implement . . .” SMUD suggests the following revisions for accuracy:

“Staff recommends that SMUD implement the following USFWS guidelines in suitable giant garter snake habitat to avoid and minimize ~~to prevent harm to giant garter snakes~~ :”

p. 4.2-33, Western Burrowing Owl, bullet 2: “Surveys will be conducted in grasslands within the project footprint . . .” SMUD concurs with the requirement to survey within 500 feet of the project site. However, SMUD believes this is not a reasonable condition for the pipeline for the reasons described above. SMUD will agree to provide figures of all active burrowing owl burrows to the CEC CPM, as the Burrowing Owl Consortium guidelines suggest.

p. 4.2-34, Swainson Hawk, para. 2: “A preconstruction survey shall be conducted . . .” SMUD has already established locations of known active and historical nests. SMUD believes that preconstruction surveys limited to 0.25 mile from the pipeline would be sufficient to avoid adverse impacts to any Swainson hawks that have not been previously detected.

p. 4.2-34, Swainson Hawk, para. 3: “Any construction activities within 0.5 mile . . SMUD has determined that it is impractical to avoid all nests by 0.5 mile as originally proposed, and will be working with CDFG to develop impact minimization and monitoring measures to allow construction within a shorter distance. Of the 6 active nests that are potentially within 0.5 mile, 5 are at least 0.2 mile from the construction area. CDFG feels that if these sites are evaluated individually, and potentially with full-time biological monitoring that temporary construction disturbance can occur without endangering the nest. SMUD will work with CDFG to develop proposed measures and submit them for CEC approval prior to FSA.

p. 4.2-35 bullets: The following table lists the data needs shown on page 4.2-35 and provides a description of information provided.

Data Need	Data Provided
Identify the acreage amounts of temporary impacts from construction of the compressor stations;	Provided in ARCVIEW Database (July 30, 2002) and Biological Resources Assessment (June 2002)
A restoration and revegetation plan for the gas pipeline, water pipeline, the access road and the transmission line;	Under revision, to be submitted prior to FSA
A revised BRMIMP that incorporates all of the updated mitigation measures that SMUD proposed in the Biological Resources Assessment (SMUD 2002z), the Wetland Delineation Report (SMUD 2002x) and staff's comments;	CEC staff agreed at biological workshop that changes would be updated in one document (the Biological Resources Assessment) before being combined into the BRMIMP to avoid having multiple versions of multiple documents. The BRMIMP will comprise both the BRA and Wetland information at the time of the FSA.
A complete Biological Assessment that contains measures to mitigate for all of the impacts to federally-listed species and their habitat, that has been submitted to the ACOE, and accepted by the USFWS and NMFS as complete. Federal Endangered Species	A complete Biological Resources Assessment (BRA) was provided to CEC, CDFG, USFWS, and NMFS on June 7, 2002 and requested comments on that document. To date, no comments have been received from any agency, and the USFWS has stated that they

**Sacramento Municipal Utility District**  
**Comments on the Cosumnes Power Plant**  
**Preliminary Staff Assessment, Set 1**

<b>Data Need</b>	<b>Data Provided</b>
Act Section 7 consultation should be initiated prior to issuance of the FSA, and staff would like to receive the draft Biological Opinion before evidentiary hearings;	have not reviewed the document. After CEC staff requested, SMUD revised the facility to include ZLD, a revised BRA was provided to these agencies again on August 12, 2002. Each agency has verified receipt but to date, no comments have been received.
A revised pipeline alignment that avoids the Laguna Stone Lake Preserve and a biological survey for the alternate alignment;	SMUD is currently evaluating the environmental and practical feasibility of an alternative alignment as required by the Clean Water Act Section 404 (b) guidelines and will provide CEC staff with the analysis prior to the FSA.
Submittal of a figure and report identifying the locations of potential occupied and unoccupied burrowing owl burrows within 500 feet of any project activities;	SMUD notes that the requirement is to submit a figure showing the location of occupied burrowing owl burrows. The only one detected to date is located more than 500 feet from the proposed pipeline. SMUD will keep CEC apprised of any new burrowing owl burrows found.
A Streambed Alteration Agreement Application(s) for the 34 crossings that have not been previously submitted, accepted as complete by the CDFG (in addition to the 3 already accepted as complete by the CDFG);	SMUD provided a copy of the referenced applications to CEC on August 16, 2002.
A Clean Water Act Section 404 Application for a Permit filed and accepted as complete by the ACOE;	SMUD filed a 404 application with the ACOE in early June 2002 and filed a revised map in late July 2002. SMUD met with the ACOE in August 2002 to identify gaps if any in the application. SMUD is responding to CEC request to evaluate a different alternative which would require another amended application be filed with ACOE.
A Clean Water Act Section 401 Application for a permit filed and accepted as complete by the CVRWQCB;	Section 404 permits generally are issued with the condition that they become effective only once the applicant has obtained a 401 permit. The 404 permit and 401 permit are not required until fill takes place. It is typical that a 404 and 401 precede construction by no more than 90 days. Therefore, there is no urgency to this application at this time.
Submittal of the heritage tree locations to Sacramento County;	SMUD has informed CEC staff that there is one heritage tree in the construction corridor, and that this tree will be avoided. SMUD has provided evidence that a tree survey in the Cosumnes Riparian Corridor is likely to cause more adverse impacts than benefits, and is not required by the County ordinance.
A complete assessment of the wetlands that are located within 250 feet on either side of the gas pipeline, access road, and laydown area. Wetlands should be identified using the methods in the ACOE 1987 manual (staff has been unable to propose a condition of certification with ratios and the acres of habitat impacted to mitigate for impacts to wetlands and vernal pool invertebrates);	Complete ARCVIEW files with all wetlands were provided to CEC July 30, 2002. As noted previously, there is no requirement from the ACOE to delineate wetlands outside the direct construction corridor. Nor is a delineation according to the ACOE manual helpful in determining suitability for fairy shrimp. Wetlands out to 1,000 feet were assessed by aerial photography from February 2002.
The number and location of elderberry plants that are located along the riparian corridors that were not	Complete surveys for elderberry plants were submitted in the ARCVIEW data of July 30, 2002.

**Sacramento Municipal Utility District**  
**Comments on the Cosumnes Power Plant**  
**Preliminary Staff Assessment, Set 1**

<b>Data Need</b>	<b>Data Provided</b>
previously surveyed;	
Noise levels for HDD at the site of the bore;	SMUD will provided what information it has.
Identify where in Sacramento County impacts to burrowing owls would be mitigated and submit the mitigation and management plan to the Energy Commission for the area for approval;	Based on current records and survey results, SMUD anticipates no impacts to burrowing owls that would require off-site compensation. Therefore no mitigation locations have been identified.
Identify where in Sacramento County impacts to valley elderberry beetles would be mitigated and submit the mitigation and management plan to the Energy Commission for the area for approval;	Based on current records and survey results, SMUD anticipates no impacts to valley elderberry beetle that would require off-site compensation. Therefore, no mitigation locations have been identified.
Identify where in Sacramento County habitat compensation will occur for Swainson's hawks, and submit the mitigation and management plan to the Energy Commission for the area for approval;	SMUD has stated that it intends to mitigate using lands around the Rancho Seco Reservoir for mitigation.
Calculate the amount of giant garter snake habitat that will be impacted by construction of the gas pipeline and identify where in Sacramento County habitat compensation would occur for giant garter snakes. Submit the mitigation and management plan for the area for approval (staff has proposed Biological Resources Condition of Certification 19 (BIO-19) to provide restoration of giant garter snake habitat, but has not been able to propose a condition of certification establishing ratios for habitat compensation); and	The area of impact was identified in the BRA submitted to USFWS (lead agency), CDFG, NMFS and CEC in June 2002. The area of impact is less than the 20 acres requiring compensation consistent with the USFWS programmatic agreement with ACOE. USFWS has not, to date, provided any comments on the BRA.
Identify where in Sacramento County habitat compensation would occur for impacts to vernal pools and wetlands, and submit to the Energy Commission the management plan for the area for approval.	SMUD has informed CEC that mitigation for wetlands would occur at the existing USFWS-approved mitigation area east of Rancho Seco Reservoir.

p 4.2-35, fourth bullet: Please note that the USFWS typically does not issue a draft Biological Opinion.

p. 4.2-36, Compliance with LORS, para. 2: In should be noted that a conversation with ACOE on 8/15/02 indicated that the target for processing a 404 permit is 120 days (Cutler and Finan, pers. Comm.).

“SMUD would also have to receive Water Quality Certification . . .” SMUD believes this statement is inaccurate. The regulations require that a Section 404 and 401 permit be authorized prior to any fill or excavation of jurisdictional wetlands. Until and unless SMUD initiates construction in jurisdictional wetlands, they are in compliance with LORS.

p 4.2-36, Compliance with LORS, para. 3: The Section states, “ . . .staff also recommends that before the FSA is completed, a Biological Assessment (BA) be accepted by the USFWS as data adequate...” Please note that the USFWS typically does not provide formal acceptance of a Biological Assessment as data adequate or complete. In addition, the section

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

states, “Until staff is certain that consultation with both federal agencies has been initiated and Biological Opinions are completed, staff is unable to conclude that the SMUD project is in compliance with federal LORS (**BIO-10**). This sentence is inconsistent with BIO-10 which requires that a Biological Opinion be provided prior to the start of any site or related facilities mobilization activities.

p. 4.2-36, Compliance with LORS, para. 4: “. . . and for the proposed relocation of Clay Creek at the CPP site” SMUD is not proposing to relocate Clay Creek, which passes through the mining ponds dam and proceeds north and east of the project site. The ephemeral drainage that would be modified by SMUD is a tributary formed by overflow from the mining ponds around the western edge of the dam.

p. 4.2-37, first full paragraph: “Staff has spoken with the County of Sacramento Tree Coordinator . . .” SMUD believes this statement is inaccurate. SMUD needs to provide a permit application only for trees that would be affected (e.g., construction within the dripline of a protected tree). At this time, SMUD anticipates avoiding all trees. If SMUD is unable to avoid heritage trees, they will consult with the County and obtain permits, as required.

p. 4.2-37, BIO-1: Please add the following language: “Should emergency replacement of the designated specialist become necessary, the project owner shall immediately notify the CPM to discuss the qualifications of the proposed replacement specialist.” This language simply recognizes that emergencies occur and that an orderly resolution of the issue is preferred.

p. 4.2-38, BIO-2, item 7: The time frame on this requirement is confusing. SMUD suggests rewriting the sentence as follows: “Within suitable habitat, check the gas pipeline corridor for giant garter snakes and northwestern pond turtles each day prior to the initiation of construction, if construction is to occur on that day.”

p. 4.2-38 BIO-3, sent. 2: Replace “and” with “or.” All of these activities wouldn’t be happening at once.

p. 4.2-39 BIO-3, Verification: “must notify the CPM immediately . . .” SMUD believes that immediate notification may be impractical or inappropriate in certain conditions and suggests the following revision: “must notify the CPM ~~immediately~~ within 24 hours (or Monday morning in the case of a weekend).

p. 4.2-39, BIO-4: The Applicant would like to request that the WEAP training be provided by video (as allowed in CUL-5). As stated in the COC, the video training would be administered by designated biologist, or a competent individual(s) acceptable to the designated biologist.

p. 4.2-40, BIO-5: In order to recognize that the BRMIMP is a “living document” SMUD suggests adding the following language the first sentence of the verification: “If there are any permits that have not yet been received when the BRMIMP is first submitted, these permits will be submitted to the CPM, CDFG, and USFWS as addendum to the BRMIMP within 5 days of their receipt.”

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

p. 4.2-41, BIO-5, item 19: “A copy of the bullfrog eradication program to be implemented for review and approval;” As noted previously, SMUD believes that a bullfrog eradication program will be ineffective and potentially have negative effects on other species. SMUD suggests that this item be deleted.

p. 4.2-42, BIO-7 and BIO-8 : SMUD suggests “if required” be added, such as the following revision: “The project owner shall acquire an Incidental Take Permit if required from the California Department of Fish and Game . . .”

p. 4.2-43, BIO-9: SMUD suggests the following revisions: “The project owner will acquire the Regional Water Quality Control Board Section 401 state Clean Water Act certification or waiver, as required, and incorporate the biological resource related terms and conditions into the project's BRMIMP.”

p. 4.2-43, BIO-12, item 5: The words “or storm water” should be removed, and the sentence should be reworded as follows: “Zero discharges to Clay Creek from cooling tower water.”

p. 4.2-43, BIO-12, item 7: SMUD suggests the following revisions:

“The project owner shall modify the project design to incorporate all practical and reasonably feasible measures that avoid or minimize impacts to the local biological resources. These include:

1. Design transmission line poles, access roads, pulling sites, and storage and parking areas to avoid identified sensitive resources;
2. Avoid wetland loss to the extent practical and feasible;
3. Prohibit refueling or storage of hazardous materials within 1200 feet of flagged sensitive resources, or 10250 feet from “waters of the U.S” or other wetlands;
4. Design and construct transmission lines and all electrical components in accordance with APLIC guidelines to reduce the likelihood of electrocutions and collisions of large birds;
5. Zero discharges to Clay Creek from cooling tower water ~~or storm water~~;
6. Dry season trenching and grading within potential California tiger salamander aestivation habitat;
7. ~~Construct the gas pipeline using an alternative~~ Evaluate the environmental, economic and technical feasibility of an alternate gas line route that does not cross the Laguna Stone Lake Preserve.; ~~and~~
8. ~~Use white non-blinking lights on the project facilities and face lights downwards.~~

p. 4.2-44, BIO-12 , item 8: To avoid confusion, SMUD suggests that all lighting conditions (from Biological Resources and Traffic and Transportation) be coordinated under Visual Resources.

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

p. 4.2-44, BIO-13, item 2: Construction activities should be limited to existing road or paved areas when available. This definition needs to be expanded to include the use of non-paved areas that have been properly assessed such as the lay down, the project site, the new construction access road, and all other areas identified and mitigated for temporary or permanent disturbance.

p. 4.2-44, BIO-13, item 4: SMUD believes that trash removal “at least once a day” is impractical and should be deleted.

p. 4.2-44: BIO-13, Item 8. SMUD suggests the following revisions:

“Construction activities ~~within less than~~ 0.5 mile of an active Swainson’s hawk ~~raptor~~ nest will be conducted according to requirements negotiated in consultation with CDFG. Such requirements could include a full time biological monitor where appropriate. ~~with a monitor watching nesting activities.~~ Criteria will be implemented to assess construction activities and their effect on the nesting raptors.

p. 4.2-44 BIO-13, Item 10. SMUD suggests the following revisions:

Clearing and grading of the project site will be conducted after the vernal pools and seasonal swales in the vicinity are dry or will be done with implementation of sufficient erosion and sediment control to ensure that adjacent wetlands are not contaminated by sediments from site.

p. 4.2-44, BIO-13, item 10: This limits clearing and grading to after vernal pools and swales are dry. This condition should be revised to limit clearing and grading only where vernal pools could be affected by those activities. This blanket statement is overly restrictive and fails to provide protection for the habitat.

p. 4.2-45, BIO-14: SMUD does not agree with the number of upland habitat replacement, but presumes that a revised calculation based on the same ratio rationale will be negotiated for the Biological Resources Assessment.

p. 4.2-45, BIO-15: SMUD suggests the following revisions:

To compensate for permanent impacts to upland foraging habitat and/or occupied burrows at the site and related facilities, the project owner shall purchase a minimum of 6.5 acres of foraging habitat per pair. ~~or unpaired resident bird at an approved mitigation bank in Sacramento County.~~ If Swainson’s hawk foraging habitat is purchased, and the habitat is suitable to support burrowing owls, the 6.5 acres will be included in the Swainson’s hawk mitigation and not in addition to that compensation.

p. 4.2-45, BIO-16: BIO-16 is already required by Item 18 of BIO-5. SMUD suggests this condition be deleted as redundant.

p. 4.2-46, BIO-17, Item 2: SMUD believes that all elderberry shrubs can be effectively avoided by construction and there will be no need to transplant or replace any plants. Therefore, SMUD suggests removing item 2.



## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

p. 4.2-46, BIO-18, Item 2,3 and 4: As noted earlier, SMUD proposes to implement burrowing owl surveys out to 500 feet only at the project site, and Swainson's hawk surveys out to 0.25 mile. Regarding item 4, SMUD believes most nesting birds should be surveyed only to the width of the construction corridor along the pipeline for reasons stated above.

p. 4.2-47, BIO-19, item 1. SMUD suggests the following revision:

"All areas that are giant garter snake habitat disturbed by construction will be restored according to the USFWS restoration and revegetation guidelines (1999)."

p. 4.2-47, BIO-19, item 3: Please clarify the period of time when dewatering can occur.

p. 4.2-47, BIO-19 item 7: SMUD suggest the language be more precise such as: "All Excavation in areas sensitive for giant garter snakes will be monitored..."

4.2-47, BIO-20: SMUD requests that #1 be deleted, as the Sacramento Tree Ordinance does not include the riparian area of the Cosumnes River. Regarding item #3, since 1990, SMUD has collaborated with the Sacramento Tree Foundation to plant more than 312,000 trees in Sacramento through SMUD's Free Shade Tree Program. The Applicant feels recognition of these efforts should be noted and considered in the condition.. Therefore, SMUD proposes that BIO-20 be revised as follows:

- ~~1. SMUD survey the Cosumnes River Riparian Corridor for heritage trees and submit the results to the CPM;~~
12. SMUD receive a Sacramento County Heritage Tree permit for activities that may impact heritage trees; and
23. SMUD mitigate impacts to heritage trees ~~but by~~ paying into the Sacramento County Tree Preservation Fund; or as required by the County.

### **CULTURAL RESOURCES**

p. 4.3-9, para 4: SMUD will provide additional clarification regarding the factors that allowed the investigators to draw the conclusion that debris at CA-SAC-68 appears to be less than 45 years old.

p. 4.3-18, CUL-3, item 7: The condition requires that the name and phone number of the contact person at the curation institution be included in the CRMMP. SMUD is unsure that this information will be available up front since arrangements for curation are not generally made until after a discovery. SMUD would then approach a repository about accepting the artifact. Therefore, SMUD requests that this requirement be deleted.

p. 4.3-20, CUL-6, para. 1: at staff's suggestion, SMUD requests that the following sentence be added to the beginning of the paragraph "The project owner shall provide the CRS with a copy of the letter granting the CRS authority to halt construction."

p. 4.3-20, CUL-6, para. 1: at staff's suggestion, SMUD requests that the following sentence be added to the end of the paragraph "Redirection of ground disturbance shall be

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

accomplished under the direction of the construction supervisor in consultation with the CRS.”

p. 4.3-20, CUL-6, Verification: SMUD believes that immediate notification may be impractical or inappropriate in certain conditions and suggests the following revision: “will notify the CPM immediately (i.e., within 24 hours and no later than the following morning ~~or~~ of the incident, or Monday morning in the case of a weekend) . . .”

p. 4.3-20, CUL-7, item 1: SMUD understands staff’s concern with defining “high probability areas,” and requests that these areas be identified in this document by a mixture of letters and numbers which maintain the confidential nature of the sites (e.g., CA-SAC-68, and CA-RY-01). SMUD expects that given the extensive amount of pre-certification testing conducted, these areas will be determined as soon as the geophysical surveys are completed. Therefore, SMUD requests that staff add the specific locations (e.g., “at CA-RY-01”) after “full time” in the first sentence, deleting “in the vicinity of the project site, linears and laydown areas, access roads or other ancillary areas.”

p. 4.3-20, CUL-7, item 4: In the first sentence, SMUD suggests that the specific locations (e.g., “at CRY-01”) be added before the word “areas,” and that “areas” and the remainder of the sentence be deleted. Beginning with the third sentence “This may be accomplished by having more than one ...” the remainder of the paragraph should be deleted. The CRS should have the flexibility to determine when concerned Native Americans are needed in relation to the cultural sensitivity of an area. SMUD has been working closely with the tribe and other Native Americans that have expressed an interest in the project and will continue to do so. The information SMUD is required to submit in the Verification section of the condition will inform the CEC on how SMUD will coordinate with Native Americans. For clarification, SMUD requests that the following two sentences be added to the end of this paragraph:

“One Native American monitor will be assigned to each construction site. If a Native American monitor is not available, for a planned construction event, construction may continue under the oversight of the CRM(s).”

p. 4.3-21, CUL-7, Verification, para. 4: SMUD suggests that this paragraph be revised as follows:

~~“One week prior to ground disturbance, in the following locations: CA-SAC-68, RY-## areas where there is a potential to discover Native American cultural resources, the project owner shall send notification to the CPM identifying the person(s) retained to conduct Native American monitoring. The project owner shall also provide a plan identifying the proposed monitoring schedule and information explaining how Native Americans who wish to provide comments will be allowed to comment. If efforts to obtain the services of a qualified Native American monitor are unsuccessful, the project owner shall immediately inform the CPM who will initiate a resolution process.~~

p. 4.3-21, CUL-7, Verification, para. 4: SMUD suggests that this paragraph be revised as follows:

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant

#### Preliminary Staff Assessment, Set 1

~~“One week prior to ground disturbance, in the following locations: CA-SAC-68, CA-RY-01 where there is a potential to discover Native American cultural resources, the project owner shall send notification to the CPM identifying the person(s) retained to conduct Native American monitoring. The project owner shall also provide a plan identifying the proposed monitoring schedule and information explaining how Native Americans who wish to provide comments will be allowed to comment. If efforts to obtain the services of a qualified Native American monitor are unsuccessful, the project owner shall immediately inform the CPM who will initiate a resolution process.~~

It is not clear what comments would be provided after a discovery has been made, nor is it clear what kind of resolution process the CPM would initiate. Native Americans associated with the local tribe have already made comments, have expressed an interest in performing monitoring, and have provided monitors during presence/absence testing.

### **HAZARDOUS MATERIALS**

p. 4.4-2, State, para. 3, sent. 2: Change “the RCPP process” to “the RMP process.”

p. 4.4-6, Zero Liquid Discharge System, sent. 2: Supplement C to the AFC identified the five new chemicals (scale inhibitor, antifoam, chelating agent, calcium sulfate, and, possibly, sodium chloride) and three existing chemicals (sulfuric acid, sodium carbonate, and, possibly, sodium hydroxide) that would be added or increased by the addition of a ZLD system. Please change “six new chemicals” to “five new chemicals” and delete the phrase, “but did not indicate the identity of these chemicals.”

p. 4.4-6, Zero Liquid Discharge System, last sentence: “Staff is unable at this time to prepare an assessment without this information” should be deleted due to the July 18, 2002 filing of Supplement C mentioned above.

p. 4.4-6, Hydrochloric acid: Table 8.12-3R in Supplement C lists the quantity of hydrochloric acid as 100 gallons. In our opinion, this chemical should be evaluated as a small quantity hazardous material rather than a large quantity material. SMUD suggests this paragraph be moved to the preceding section on small quantity materials.

p. 4.4-6, Sodium Hypochlorite: Staff has concluded that sodium hypochlorite has a low potential to impact the off-site public due to its low vapor pressure, its aqueous solution, and its storage quantity. Sentence 6 of this paragraph concludes that sodium hypochlorite poses an insignificant risk to the public. However, sentence 8 states that measures to prevent spills during transfer from delivery vehicles are extremely important and requires that a Safety Management Plan be prepared for delivery of sodium hypochlorite (HAZ-3). Please explain why control measures are extremely important when the potential impact is insignificant.

p. 4.4-7, Sodium Hydroxide. This section concludes that no further analysis is needed for sodium hydroxide because, due to its relatively low vapor pressure, it does not pose a risk of off-site impacts. The same should then be true of sodium hypochlorite (see preceding comment).

## **Sacramento Municipal Utility District**

### **Comments on the Cosumnes Power Plant**

#### **Preliminary Staff Assessment, Set 1**

p. 4.4-11, Seismic Issues, para. 1, sent. 1: Reword the first sentence to read: “The possibility that [a] hazardous material spill could occur during an earthquake, which would cause if the quake caused the failure of a hazardous materials storage tank was also evaluated by staff.”

p. 4.4-11, Seismic Issues, para 1, sent. 3,: This sentence should be deleted. The sentence makes it sound like a realistic probability that a vapor cloud of hazardous materials would be formed during an earthquake and migrate off site, impacting nearby residents. This contradicts the previous evaluation of large quantity hazardous materials, which concluded that hydrochloric acid, sodium hypochlorite, and sodium hydroxide do not pose off-site risks, and that natural gas poses a risk of fire or explosion from a pipe rupture (not migration of a vapor cloud from a tank failure). Also, that a release of aqueous ammonia in a worst-case scenario would be limited to the project site and areas to the north of the site where there are no residences. The last sentence of page 4.4-11, paragraph 3 states that tank failures during seismic events are not probable and do not represent a significant risk to the public.

p. 4.4-17, HAZ-1: Please delete hyphen and insert “the” before “Sacramento County Environmental Management Department.”

p. 4.4-17, HAZ-1, Verification: Please delete the words “in reportable quantities” or identify the regulatory source of the reportable quantities to be used.

p. 4.4-17 and 18, HAZ-2, Verification last sentence: Change this wording from “...provide the final EPA-approved RMP...” to “provide the final RMP that has been approved or deemed complete by the EPA...”

p. 4.4-18, HAZ-3, sent. 1: Please delete “and sodium hypochlorite” because staff’s evaluation concluded that impacts are less than significant.

p. 4.4-19, HAZ-7, Verification: Please change “an earthquake” to “a significant seismic event where surface rupture occurs within one mile of the pipeline.”

p. 4.4-19, HAZ-8: The Applicant feels that there is no technical basis for this condition, as semi-trucks safely travel SR-104 on a regular basis, with shipments that include formaldehyde, propane, gravel, ammonia for farming/fertilizer application, and others. Since an ammonia truck is rigorously constructed in accordance with DOT requirements, and is not a wide load, the Applicant feels this condition should be deleted as burdensome and unnecessary, and not contributing significantly to an increase in safety. Staff’s analysis on p. 4.4-13, para. 1, 2, and 3, shows historical risk on all roads is “insignificant;” therefore, there should be no condition placed upon a historically insignificant risk.

p. 4.4-20, References: Please change the reference SMUD 2002aa to delete the words “Executive Summary” and change the date from July 10, 2002, to July 18, 2002. The later full report should be referenced rather than just the early release Executive Summary.

p. 4.4-24, Appendix B. Please replace Appendix B with revised Table 8.12-3R from Supplement C to the AFC.

**Sacramento Municipal Utility District**  
Comments on the Cosumnes Power Plant  
Preliminary Staff Assessment, Set 1

**LAND USE**

p. 4.5-9, Power Plant, para. 5: Toward the end of the paragraph, staff states that CPP may be inconsistent with County Noise policy NO-2 and with Conservation policy CO-13. The reader is referred to the Noise and Vibration section and the Biology sections. Neither of these sections reference the respective policies and the discussion in the land use section is insufficient to determine what the policy is and why the project is not in compliance with it. Further discussion of CO-13 states that the policy requires that roads and structures should be built and landscaped to minimize erosion during and after construction. The Applicant submitted draft erosion control plans for the site and laydown areas in response to Data Request #244 (see Data Response Set 3B, Attachment W&SR-244 Stormwater Pollution Prevention Plan).

p.4.5-10, first full paragraph: The first sentence should be revised as shown: “The CPP would consist of, among other things, four heat recovery steam generators the exhaust stacks of which would be 165 feet high.”

p. 4.5-13, sent.1, LAND-1: Please add the phrase to the end of the sentence: “. . . City of Elk Grove zoning ordinances within their respective jurisdictions.”

p. 4.5-13, sent.1, LAND-1, Verification: Please change the phrase “for the set forth in the Sacramento County Zoning Ordinance” to “as set forth in the zoning ordinance of the respective jurisdiction.”

p. 4.5-13, LAND-1: Verification: “At least 30 days prior to construction of a portion of the CPP Project, the project owner shall submit written evidence to the Energy Commission Compliance Project Manager (CCP) that that portion of the project conforms . . .” These proposed additions recognize that design plans will be available at different times. For example, the final landscaping plan will significantly trail initiation of construction.

Land Use, Figure 2: The figure shows two pipelines, 700A and 700 B. SMUD operates a single pipeline.

**NOISE AND VIBRATION**

p.4.6-9, Noise Table 4 and Pile Driving Vibration: The Applicant would like staff to consider, at this time, a condition of certification for pile driving, and include noise estimates in PSA Noise Table 4, extracted from data provided in AFC Table 8.5-8.

p. 4.6-11, Power Plant Operation, para. 2: Please delete reference to an auxiliary boiler as a primary noise source. The CPP does not propose to use an auxiliary boiler.

p. 4.6-17, NOISE-1: There is a conflict between this Condition and the language on page 7.1-10 under COM-11. NOISE-1 states that notification will be sent to residents within one-half mile, while COM-11 states that notification will be sent to property owners within one mile. Please clarify which distance is correct.

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant

#### Preliminary Staff Assessment, Set 1

p. 4.6-18, NOISE-2, Verification: Please stipulate that the submittal time frame specified are business days.

p.4.6-19, NOISE-4: The Applicant anticipates high pressure steam blows will be required on a 24-hour basis for a short period and requests conditions allowing this to take place.

p. 4.6-19; NOISE-6: Consistent with the reasoning and cumulative levels determined for the Valve #190 gas compressor and the power plant site noise level restrictions, please revise the allowable Winters gas compressor noise level to 39 dBA, which will ensure that the cumulative noise level is less than 40 dBA.

p. 4.6-20, NOISE-6, item A: Given that this project will be constructed in two phases, please specify that the monitoring is required at R1 (the new location of the trailer) and R2 after completion of Phase1 and at R1, R2, M2 and M4 after completion of Phase 2. Given that the trailer will likely no longer be present at Site R1, monitoring will be conducted at the new location of R1 or the nearest existing residential receiver, in the event that R1 is removed completely.

p. 4.6-20, NOISE-6, Verification: Please change all submittal requirement time frames to 30 days.

p. 4.6-21, NOISE-8: Horizontal drill rigs are generally not considered to be a noisy construction activity. Please indicate why these rigs are singled out for additional consideration. At a minimum please include the use of leaded vinyl curtains as an example of a suitable barrier. In addition, please provide examples of “noisy construction” activities so the construction team can easily comply with this condition.

### **PUBLIC HEALTH**

pp. 4.7-7 & 8, sentence beginning on the bottom of page 7: Please revise with the following language, at the top of page 4.7-8: “. . . noting that actual estimated risk from mobile source emissions for the rural area would be ~~much~~ less when compared with an urban area.”

### **SOCIOECONOMICS**

p. 4.8-1, Executive Order 1288, sent. 2: Please provide statutory reference that requires environmental justice (EJ) to be applied to “state agencies receiving federal funds.”

p. 4.8-16, SOCIO-1: In the Employment and Economy section of the PSA (see pages 4.8-10 to 11) the staff concurs with the AFC in that CPP would result in positive employment, fiscal and economic impacts. SMUD is committed to hiring and purchasing locally but would prefer to reduce the record keeping requirements of SOCIO-1. Since there are no adverse impacts from the project to employment, SMUD would prefer to have the SOCIO-1 verification revised as follows:

**Verification**: At least 60 days prior to site mobilization, the project owner shall submit to the Compliance Project Manager (CPM) ~~copies of contractor, subcontractor, and vendor solicitations and guidelines stating hiring and procurement~~

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1

~~requirements and procedures. In addition, the project owner shall notify the CPM by letter of the reasons for any planned procurement of materials or hiring outside the Sacramento and San Joaquin County area that will occur during the construction period. a list of contractors and material suppliers providing products, services, and labor to CPP from Sacramento and San Joaquin counties. The project owner will also provide copies of vendor solicitations and guidelines stating hiring and procurement preferences and procedures for Sacramento and San Joaquin counties.~~

#### **TRAFFIC AND TRANSPORTATION**

p.4.9-10, Workforce Travel Route, para. 3: The Applicant would like to clarify that parking during construction will be provided in the laydown/parking area south of Clay East Road.

p. 4.9-13, 1<sup>st</sup> complete sentence: It should be noted that Clay East Road is also used by the vineyard operations, cattle operations, and Dry Creek Ranch farming operations in addition to delivery and service trucks, all of which contribute traffic to the area (see traffic count data, Data Response 1M).

p.4.9-13, paragraph after Table 5: It should be noted that SMUD cannot require entities such as the U.S. Postal Service, Federal Express, UPS, etc, to use the new construction route. Also, Clay East Road may be used for emergencies. See also the comment on TRANS-9, below.

p. 4.9-21, TRANS-3: Add the words “as necessary” following the word “Caltrans.”

p. 4.9-21, TRANS-5, second bullet: Please revised this bullet to read, “Redirecting construction traffic as described in TRANS-9.”

p. 4.9-22, TRANS-8: The HRSG exhaust stacks are the highest features of CPP at 165 feet, which are significantly lower than the 425-foot cooling towers at RSP. Crop dusting is not an activity that takes place in the vicinity, or on SMUD’s 2,480-acre property. Lighting and marking the stacks is in conflict with Condition BIO-12, and traditionally in conflict with typical visual conditions to minimize contrasting features that are associated with aircraft avoidance color schemes. In addition, the distance to airports is more than 10 miles (see Data Response #81, Data Response, Set 1A). Therefore, the Applicant proposes that this condition be dropped.

p. 4.9-23, TRANS-9: Please revised this condition and Verification as follows:

**TRANS-9**      The project owner shall take reasonable steps to reroute construction workforce traffic to avoid the use of Clay East Road ~~located west of the proposed plant entrance for the CPP~~ between Twin Cities Road and Kirkwood Road. This would be done by SMUD constructing a new plant access road that would take traffic from the Rancho Seco Park entrance road south to Clay East Road.

#### **Protocol:**

SMUD would develop a traffic control plan that would ensure construction workforce traffic would travel on Twin Cities Road to the Rancho Seco Park

## **Sacramento Municipal Utility District**

### **Comments on the Cosumnes Power Plant**

#### **Preliminary Staff Assessment, Set 1**

entrance road. The construction workforce traffic would then take the Rancho Seco Park entrance road to a dedicated plant access road, to be constructed by SMUD, south to Clay East Road. At the intersection with Clay East Road construction traffic would turn west on Clay East Road and proceed to the CPP entrance road.

In exiting the CPP site construction traffic would turn east on Clay East Road and proceed to the dedicated plant access road in order to return to Twin Cities Road.

**Verification:** ~~At least 30 days prior to the start of project construction~~ Prior to reaching a construction staffing level of 100 day-shift workers for the project, the project owner shall provide the CPM with written documentation on the completion of the dedicated plant access road from the Rancho Seco Park entrance road to Clay East Road.

The project owner shall also include traffic control measures that ensures construction workforce traffic would not use the ~~western~~ portion of Clay East Road between Twin Cities Road and Kirkwood Road. This could include the use of signage at the intersection of Clay East Road and Twin Cities Road directing construction traffic to the Rancho Seco Park entrance road, ~~and a flagman at the CPP entrance road to ensure construction traffic travels from the construction area east on Clay East Road, to the access road.~~ or other methods outlined in the traffic control plan.

These changes are requested since the project will only have control over construction worker traffic. As noted in the comments above, other deliveries and emergency traffic will likely use Clay East Road. Since construction of the access road needs to be completed before significant work starts at the plant site, requirements for the start and completion of the access road need to be separated from other COC triggering preconstruction submittal requirements. A similar COC tied to the number of workers on-site was used in the Moss Landing Decision (see TRANS-6).

### **TRANSMISSION LINE SAFETY AND NUISANCE**

No comments.

### **VISUAL RESOURCES**

Comments to be provided after section is received.

### **WASTE MANAGEMENT**

p. 4.12-3, para 2, sent. 4, Project and Site Description: Please change “discharge treated, spent cooling water to Clay Creek” to “discharge spent cooling water to a zero liquid discharge system.”

p. 4.12-4, first complete paragraph, sent. 1. Please change “It *is* staff’s opinion” to “It *was* staff’s opinion.”



## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant

#### Preliminary Staff Assessment, Set 1

p. 4.12-6, para 1. Please delete entire paragraph. Additional information has been provided by Applicant and approved by the CEC. See p. 4.12-4, para 2.

p. 4.12-7, Nonhazardous liquid wastes: Please revise the paragraph to read as follows:

As discussed in Section 8.13.4.2.2 of the AFC (SMUD 2001a), two facility systems will deal with nonhazardous liquid wastes, the primary or Plant Wastewater System, and the secondary or Sanitary Wastewater System. This secondary system will collect sanitary liquid wastes, treat them in a ~~package plant septic tank system~~, and discharge the effluent to a leachfield. The primary system deals principally with wastewater resulting from circulating water system blowdown, which includes wastes recycled from the purification of power-cycle makeup water, and evaporative cooler blowdown, and HRSG and auxiliary boiler blowdown. ~~The system also manages wastewater from general plant drains and the oil/water separator, drains from the chemical feed area containments, and evaporative cooler blowdown. Most~~ Some of these wastes will have been exposed to treatment chemicals and large volumes will result from processes that concentrate dissolved solids. These sources of primary wastewater (deemed clean) will be forwarded to the cooling tower basin. The primary system also manages wastewater from equipment drains/bell-ups, plant area floor drains, and drainage from online combustion turbine washing operations. These sources of primary wastewater (deemed oily) will be directed through the oil/water separator and forwarded to the brine concentrator. Some of these wastes will be directed through the oil/water separator whose effluent will be discharged to the plant septic tank and leachfield (see AFC Section 2.2.9.1.2). ~~[Staff notes that the ZLD description prepared by the applicant (SMUD 2002aa) does not specifically address this particular discharge and thus staff assumes that the information in the AFC is correct.]~~ Depending on quantity, Wastewater containing cleaning chemicals that results from offline combustion turbine washing operations will be ~~either~~ transported offsite for disposal at an approved wastewater treatment facility, ~~or directed to the plant package treatment system.~~ The ZLD system proposed by the applicant would process all plant wastewater, and therefore eliminate the need for a National Pollution Discharge Elimination System (NPDES) discharge permit from the Regional Water Quality Control Board (RWQCB).

p. 4.12-10, first full paragraph: Please delete this paragraph. Applicant has responded to staff's data request and staff has indicated that COC's WASTE-4 and WASTE-5 will adequately address the issue (see p. 4.12-4, para 1).

p. 4.12-13, sent. 1, WASTE-5, Verification: Please insert the word "final" before reports.

p. 4.12-14, References. Please change the reference SMUD 2002aa to delete the words "Executive Summary" and change the date from July 10, 2002 to July 18, 2002.

### **WATER AND SOIL RESOURCES**

No comments to soils.

## **Sacramento Municipal Utility District**

### **Comments on the Cosumnes Power Plant**

#### **Preliminary Staff Assessment, Set 1**

Comments to Water Resources will be provided along with comments on the Alternative Cooling Analysis.

#### **WORKER SAFETY/FIRE PROTECTION**

No comments.

#### **FACILITY DESIGN**

No comments.

#### **GEOLOGY, MINERAL RESOURCES AND PALEONTOLOGY**

##### **General Comments:**

- Several times in the COCs the word “*recovered*” is used in reference to paleontological resources. This word can be interpreted by construction workers to mean covered back up after having been uncovered. For clarity, the Applicant suggests that the word “*recovered*” in the COCs needs to be replaced with either “*salvaged*” or “*collected*”.
- The COCs incorrectly use the name “*Society of Vertebrate Paleontologists*” for the Society of Vertebrate Paleontology.

##### **Specific Comments:**

p. 5.2-8, Site Specific Impacts, para. 1: The first sentence lists what construction-related activities “are considered to present a potential impact to paleontological resources.” This list includes “grading of the fill”. Since fill materials are typically monitored when first excavated, in the past the CEC has not required monitoring excavations in or grading of fill. Therefore, the Applicant would like to have “grading of the fill” removed from the list.

p. 5.2-9, PAL-1: Describes the “minimum qualifications” required of the Paleontological Resource Specialist (PRS). The Applicant would like to request that the requirement of “publications in scientific journals” not be required. Some paleontologists now doing mitigation paleontology have not published in scientific journals and, therefore, may not qualify as a CEC-approved PRS. Nonetheless, these individuals may have significant field experience which is the focus of the mitigation measures. This requirement unnecessarily restricts the availability of potential PRS candidates without providing a significant benefit in qualifications.

p. 5.2-11, PAL-2, para 1: The requirement that the PRS consult weekly with the project superintendent or construction field manager should be revised to provide some flexibility and allow either the PRS or his/her designee to consult with the project superintendent.

pp. 5.2-11 and 12, PAL-3, items 4 and 5: There is no way to accurately predict in advance of excavations exactly what geological materials will be found in the subsurface. Predicting in advance of construction what sampling is expected to take place will be difficult, if not impossible. How is this to be done? Should the applicant provide a general estimate of the number of samples to be collected for microfossil analysis, radiometric dating,

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant

#### Preliminary Staff Assessment, Set 1

paleomagnetic analyses, etc. in the PRMMP and then provide a comparison of the PRMMP to what actually occurred in the PRR (PAL-7). Similarly, in item 5) the motoring schedule for the entire project may not be available, or be very accurate, 30 days prior to beginning any ground disturbing activities. These schedules are updated continuously during project construction. How are these changes to be reconciled with the PRMMP? (See also comments on PAL 5, item 1, below). SMUD suggests that these items are unworkable and that they should be dropped.

p. 5.2-12, PAL-4, paras. 1 & 2: The second sentence of paragraph 1 states that workers may not operate equipment prior to receiving training. This contradicts a statement in the second paragraph, which says that training shall occur within 4 days following a new hire for highly sensitive sites. This statement implies that the worker can begin to operate equipment prior to receiving training, provided that the training is received within the first 4 days of employment. This approach is preferred by the Applicant.

p. 5.2-12, PAL-4, para. 2: The last sentence in this paragraph requires that the WEAP training be provided to workers not fluent in English. Although this is a commendable goal, it is not required by either the Biological or Cultural training. Also, implementation of this COC would, in effect, result in removal of all non-fluent English speakers, since it would be too costly to translate the WEAP into every language, or hire interpreters for each training session. The fluency of the workers is not known until they arrive at the job site for training. In the Sacramento area possible languages could include Spanish, Russian, Ukrainian, Vietnamese, Hmong, and others. The Applicant requests that this requirement be dropped.

p. 5.2-13, PAL-4, Verification, para. 2: Paragraph 2 of the Verification indicates that the project owner is allowed to use a video for interim training. (The term “interim training” has not been defined.) The second paragraph of PAL-4 states that *in-person* training must be provided for new employees involved in ground disturbing activities in highly sensitive geologic units. As mentioned in the prior comment, it also states that in-person training must be provided within 4 days of the hire date for workers at highly sensitive sites, and that training can be provided on a schedule established by the PRMMP for sites of moderate, low, and zero sensitivity.

In-person training is not specified by the COCs for cultural or biological resources, only for paleontological resources. Therefore, the Applicant would like to use video training (rather than in-person training) as allowed by CUL-3 and implied in PAL-4. This approach would allow the WEAP training to be consistent for Biological Resources, Cultural Resources and Paleontological Resources.

p. 5.2-13, PAL-5: The last sentence in PAL-5 on the bottom of page 5.2-13 states specifically that “the PRS shall notify and seek the concurrence of the CPM.” In previous editions of the COCs this requirement read “the PRS shall notify the project owner.” Since in most other COCs, communication from the PRS is through the project owner and not directly to the CPM, the Applicant requests that this section be modified to “the PRS shall notify the project owner, who will seek the concurrence of the CPM.”

## Sacramento Municipal Utility District

### Comments on the Cosumnes Power Plant

#### Preliminary Staff Assessment, Set 1

p. 5.2-14, PAL-5, Item 1: Construction schedules are fluid and subject to constant change. Requiring that ***any change*** in the monitoring schedule that differs from the schedule set forth in the PRMMP (which was submitted at least 30 days prior to the start of construction) require a letter requesting approval of the change from the CPM creates an unworkable situation that is bound to lengthen the construction process. Why would the CPM need to approve every change in the construction schedule? The critical factor is that the PRS be kept abreast of such changes and that a PRM is present during construction. SMUD suggests that this is unworkable and should be dropped.

p. 5.2-14, PAL-5, Item 2: Contains two unrelated issues. The second sentence reading “The PRS may informally discuss paleontological resource monitoring and mitigation activities with the CPM at any time” is reverting back to a similar statement put into CEC COCs written prior to 2000, but left out of COCs written in 2000, 2001, and through July in 2002. It is SMUD’s understanding that this sentence was deleted from more recent COCs at the request of other applicants, who felt that it was inappropriate for a consultant to be communicating directly with the regulatory agency rather than through either their client (CH2M Hill) or the project owner. The PRS should always discuss paleontological activities with the project owner. The project owner should be given every opportunity to correct any deficiencies.

p. 5.2-14, PAL-5, Item 3: This item adds a new responsibility to the PRS: “The PRS shall immediately notify the project owner and the CPM of any incidents of non-compliance . . . .” First, this new requirement specifies that the PRS communicate directly with the CPM. Secondly, it deputizes the PRS and makes him/her responsible to point out violations of the COCs. This requirement makes the PRS an agent of the CEC and could pit the PRS against the project owner creating a difficult working relationship. The PRS should be reporting to the owner unless there is blatant disregard on the part of the owner. Ordinarily, the PRS will report to the owner and the owner will report to the CPM. The owner should be allowed to correct the noncompliance. This keeps the lines of communication open between the PRS and the owner and more correctly assumes that the owner will handle any incident appropriately. SMUD suggests wording for item 3 include: “The PRS shall immediately notify the project owner or the project owner’s onsite representative and the project owner shall notify the CPM within 24 hours of any incidents of non-compliance with any paleontological resources conditions of certification, and shall include steps being taken by the project owner to bring the project into compliance.”

Furthermore, SMUD requests that “immediately notify” in item 3 and in item 4 be changed to “notify within 24 hours (or Monday morning in the case of a weekend).”

p. 5.2-14, PAL-5, item 4: This item needs to be clarified. The sentence either means that the CPM shall be immediately notified of “any significant paleontological resources encountered [= discovered] . . . .” or the sentence can be interpreted to mean that the CPM only needs to be notified “. . . of any halt of construction activities” resulting from the discovery of significant paleontological resources. Please clarify.

## **Sacramento Municipal Utility District**

### **Comments on the Cosumnes Power Plant**

#### **Preliminary Staff Assessment, Set 1**

p. 5.2-14, PAL-5, last full paragraph prior to Verification: This paragraph requires the PRS to include in the monthly compliance reports “descriptions of training . . . activities . . . .” This is an unnecessary duplication of effort and should be removed since PAL-4 requires the project owner to provide that same information. (The project owner is also required to provide that information for biology and cultural training as well, see BIO-4 and CUL-5).

p. 5.2-14, PAL-5, last full paragraph: This paragraph also requires that monthly reports include “descriptions of . . . construction activities and general locations of excavations, grading, etc.” This requirement should be dropped. Keeping accurate records of construction activities, including locations would require PRMs to keep a detailed daily record of such activities and in a typical month describing these activities could require several paragraphs or even pages of information. This requirement would definitely add to the work load and responsibilities of both the PRS and the PRMs; would add to paperwork and record keeping required; and would seem to be especially burdensome, unreasonable, and unnecessary if no paleontological resources were found during that month. Any information of value would be covered by the third sentence of that paragraph. Furthermore, this would be a duplicative effort because one of the general requirements for the Monthly Compliance Report prepared by the owner is that there is a summary of the current project construction status.

p. 5.2-15 PAL-6, Verification: Since some museums charge curation fees and others do not, this sentence should be rewritten as: “The project owner shall be responsible to pay any curation fees charged by the museum repository for fossils collected and curated as a result of paleontological monitoring and mitigation.”

p. 5.2-15, PAL-7, para. 2: The following phrase should be added to the end of this COC: “that project impacts to paleontological resources have been mitigated below the level of significance.”

p. 5.2-17, References: Fisk, L. H., 2001, incorrectly refers to another project done for SMUD. The correct reference is: Fisk, L. H., 2001, Cosumnes Power Plant Project Application for Certification Paleontological Resources Section: unpublished report prepared for CH2M Hill Corporation and Sacramento Municipal Utility District, by PaleoResource Consultants, Sacramento, CA, 29 p.

### **POWER PLANT EFFICIENCY**

p.5.3-4, Equipment Selection, para. 1: The Applicant has selected two GE Frame 7FA machines for the first phase. It is a good assumption that equivalent, or better machines would be selected for the second phase, recognizing that technology is usually enhanced with the passage of time.

p. 5.3-6, para. 1: As engineering design progresses, the Applicant is expecting to employ evaporative cooling in lieu of inlet air fogging, based upon recommendations gathered from other 7FA users.

**Sacramento Municipal Utility District**  
Comments on the Cosumnes Power Plant  
Preliminary Staff Assessment, Set 1

**POWER PLANT RELIABILITY**

No comments.

**TRANSMISSION SYSTEM ENGINEERING**

p. 5.5-6, para. 3: The Rio Linda/Eleverta Power Project has been withdrawn and the Roseville Energy Facility project has been suspended for one year by the developer. CPP will now be the lead, and perhaps only apparent significant project in the region, which will reduce the potential for system impacts due to increased generation. This theme is carried throughout the TSE PSA section, which SMUD expects will require revision of content and conclusions and recommendations. SMUD continues to work with the Sacramento Valley Study Group to develop near-term operating procedures to avoid or mitigate potential adverse system impacts.

**ALTERNATIVES**

Comments to be provided after section is received.

**GENERAL CONDITIONS**

p. 7.1-2, Ground Disturbance: After paragraph, include the following: “Ground disturbance also does not include: a) the installation of environmental monitoring equipment; b) a soil or geological investigation; c) a topographical survey; d) any other study or investigation to determine the environmental acceptability or feasibility of the use of the site for any particular facility.

p. 7.1-2, Construction, items b and d.: The Applicant anticipates driving test piles to aid in a geological investigation at the site, performed during the design phase of the project and prior to construction. Also, it should be made clear that construction of the access road does not trigger the preconstruction submittal requirements for the other parts of the project.

p.7.1-4, COM-1: Please add to the end of the condition the following sentence, “All individuals must follow SMUD’s standard safety requirements such as wearing appropriate protective equipment and observing safety rules when inspecting the site.”

p. 7.1-4, COM-3; and p. 7.1-9, COM-7, item 11: Please provide justification under the Warren-Alquist Act, an environmental impact, or a LORS for this requirement as it applies to SMUD, or drop these requirements.

p. 7.1-6, Compliance Matrix, item 8—This requires that the project’s preconstruction and construction milestones including dates and status be included as part of the compliance matrix. SMUD cannot envision how this would fit in the matrix. It makes more sense as part of the compliance reporting rather than part of the matrix. SMUD suggests moving this requirement over to the Monthly and Annual Compliance Report sections on page 7.1-8 and 7.1-9.

## **Sacramento Municipal Utility District**

### **Comments on the Cosumnes Power Plant Preliminary Staff Assessment, Set 1**

p. 7.1-9, Annual Compliance Report: Change the first sentence to: “After the air district has issued a Permit to Operate, or after the project has been declared commercial and construction is complete, the project owner shall submit Annual Compliance Reports instead of Monthly Compliance Reports.” Typically the permit to operate can come much later and SMUD will want to discontinue the monthly reports once the construction is complete and the project has gone commercial. This has been acceptable in the past.

#### **APPENDIX A—ALTERNATIVE COOLING ANALYSIS**

Comments to be provided after section is received.